THE GENESEE FARMER.

Agriculture is the most Healthy and Honorable, as it is the most Natural and Useful pursuit of Man.

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## PREPARATION OF NIGHTSOIL.

We have received several private letters asking information as to the best way of preparing and using nightsoil, which we propose to answer through the pages of the Farmer.

Some experience and considerable research have convinced us of the necessity of restoring to all depastured, mown, and tilled lands, a part of all the plants removed in grass, hay, grain, or roots, either by man or his domestic animals. Every farmer should adopt a system of husbandry which will so improve his cultivated fields, that thirty bushels of wheat and sixty of corn will be a common harvest. To do this, those elements in the seeds of grain, roots, and grass, which form *meat*, and the richest manure, such as is found in the vaults of privies, must be saved and applied to the growing crops in the most skillful and economical manner.

There are two points to be attained in preparing nightsoil. First, to remove all odor or offensive smell from the fertilizer. Second, to get rid of the 75 per cent. of water in the semi-fluid mass. These purposes effected, and there remains a very concentrated and exceedingly valuable food for all cultivated plants, which may be drilled in with seed wheat, or sown broad-cast over growing crops. Every privy should have a water-tight box in the vault, so arranged that it can readily be drawn out at the back side or one end of the building, and emptied of its contents. Gypsum and common salt are the most economical deodorizing agents that can be used. A very moderate quantity of either will answer, although a little of both salts, that is, sulphate of lime (gypsum) and chloride of sodium, (common salt,) is better than to use but one. No more should be used than is required to fix all volatile elements, especially in cities and villages where the fertilizer has to be carried some distance. For this purpose, it is believed that 15 per cent. of gypsum or 10 of common salt will suffice, estimating the whole at its dry weight.—That is to say, 1000 lbs. of dry poudrette should contain 150 of gypsum, or 100 of salt. Where the last named articles are cheap, it might be better to have 250 lbs. of plaster of Paris and salt to 750 of dry excretions. The more of the salts contained in urine the fertilizer possesses, the larger the amount of gypsum or common salt one should use to fix the ammonia. Plaster of Paris will form *sulphate* of ammonia, the sulphuric acid (oil of vitriol) leaving the lime in the plaster to unite chemically with the volatile alkali called ammonia. In a similar manner, the chlorine in common salt (chloride of sodium) will leave the sodium to combine chemically with ammonia, and form sal. ammoniac, (chloride of ammonium.)

After gypsum and salt have been applied to the mass of stercoraceous matter, it should be well dried in the sun, precisely as common salt is made by solar evaporation. In large establishments in cities, the fecal matter, after it is dried, should be ground in a bark mill, to form a fine powder which could readily be drilled like the finest guano or ground hen dung.

One hundred pounds of dry food, consisting of bread, meat, potatoes, and vegetables, will form about forty of solid excretions. To this, ten pounds of salt and gypsum may be added, when the fertilizer on fair land will re-produce 150 lbs. of bread, meat, and potatoes again. On poor land, which is leachy, not over 50 or 75 pounds can reasonably be expected from the poudrette, or nightsoil.

We have so often stated the well ascertained fact, that some 60 per cent. of the solid matter in the food consumed by all the higher orders of animals, escapes from the body through the lungs in the process of breathing, that it appears unnecessary to explain again this natural phenomenon. In a barrel of flour sent to market, there are 186 pounds of carbon (charcoal) and the elements of water. When this flour is eaten in bread, about 117 lbs. escape as vapor and carbonic acid from the organs of respiration into the atmosphere, and 79 lbs. appear as feces and salts in urine. Of these 79 lbs., 70 are still nothing but carbon (coal) and the organized elements of water, (oxygen and hydrogen.) The other 9 lbs. are azote (base of ammonia) and incombustible salts, or earths. By retaining all of these elements, including nitrogen, or azote, in conjunction with 30 lbs. of organized carbon, oxygen, and hydrogen, it is confidently believed that 39 or 40 lbs. of the most precious atoms in a barrel of flour, drilled in with the seed, will produce, with fair tillage and fair seasons, wheat enough to make another barrel of flour. In this estimate, it is assumed that the farmer will make a good use of the bran, chaff, and straw, as well as the fertilizers derived from flour. By not loosing any straw nor bran, and regaining 20 per cent. of the *best* ingredients in the flour, good crops of wheat can be grown at much less expense than is now generally incurred.

Where nightsoil is not to be hauled but a short distance, dry muck and pulverized charcoal may be used to advantage as an absorbent. Copperas (sul-

phate of iron) was considerably used in the city of Augusta, Georgia, last summer and autumn, on the recommendation of the writer, as a disinfecting agent, and with the most satisfactory results. There was no cholera, and scarcely a case of fever in the city, during all the warm season of the year. The copperas used was an inferior article, which cost only a dollar per 100 lbs.

## A GENERAL VIEW OF AMERICAN AGRICULTURE.

### THE POSITION OF AMERICAN FARMERS.

EVERY one that eats bread, or wears cloth made of wool, cotton, or flax, has a direct personal interest in the results of Tillage and Farm Economy.—Hunger and nakedness are wants of the most pressing character; and Providence has placed them alike in every human being. In civilized communities, all are equally dependent on successful agriculture for the means of subsistence. Let the soil be permanently exhausted, or fail but for a year to reward the labor of the husbandman, and no language can adequately describe the intensity of the universal suffering that must ensue. Hence, this branch of national industry has peculiar and paramount claims to the earnest attention and the fostering care of all governments which are regardful of the public safety, and sustained by common sense.

American Agriculture offers for consideration several interesting and striking features. Prominent among these is the fact, that nearly three-fourths of the labor and capital of the country are employed in this single pursuit. Agriculturists are themselves a large majority of the voters, tax-payers, and consumers of all domestic and foreign goods.

Under their republican system, they are mainly responsible for the good government of each State, and of the Union. If their public servants, whether in Congress or State Legislatures, fail to promote improvements in agriculture, as recommended by President Washington, the fault is not in their representatives, but in those who neglect to ask for such aid as government may properly grant.

American farmers enjoy advantages superior to those of all other nations, for improving both themselves as a class, and their landed estates, up to the highest capabilities of man and of the earth which he cultivates. This republic proffers to rural art and rural science, more than one thousand millions of acres of available farming lands, of which as little or as much may be subdued and improved as wisdom shall dictate. There is neither compulsion nor restraint in either direction. With this entire freedom of action, is associated a degree of security for life, liberty, property, toleration of religion, and exemption from onerous taxes, without a parallel in the history of the world.

In extent of sea coast, facilities for river, lake, and canal navigation — for variety of climate, soil, vegetable and animal products — for indefinite and almost unlimited commercial, manufacturing, mineral, and hydraulic resources, no other country equals this. There is some danger, however, that we shall prove unworthy of so great blessings — that we may forget the source whence they come — abuse the peculiar advantages and the exalted privileges which we possess, and blindly cling to the barbarous practice of impoverishing the soil, to the incalculable injury of coming generations. Instead of exhausting millions of acres without any adequate recompense, instead of looking longingly to the wilderness of forest and prairie at the west, we should search closely into the lands already under the plow, and learn what can be done to add two, three, and four-fold to their present productiveness. The time has at last arrived, when it is indispensable to the continued prosperity of all the older States, that the principles both of renovating and exhausting cultivated fields, be thoroughly and universally understood.

### A FEW FACTS ABOUT SOILS, PLANTS, AND ANIMALS.

Soils contain, as a general thing, not more than one part in a thousand of the atoms, in an available condition, which nature consumes in forming a crop of any kind. This statement expresses a fact of great practical importance; for the husbanding of these fertilizing atoms is the first step toward arresting the impoverishment of the earth. It is the matter in the soil which makes crops in one arrangement of its atoms, and forms manure in another condition of the same atoms, that the farmer should learn to preserve from waste and loss.

Soils of different degrees of productiveness, where their mechanical texture and physical properties are alike, always contain unlike quantities of the food of crops. It seems to make little difference how small is the amount of the lacking ingredient in the composition of cultivated plants. Its absence is fatal to the farther growth of the crop, after its appropriate aliment fails in the soil. It is easy to discover the wisdom of this universal law. Suppose Nature should organize grass, grain, and other plants which serve as the daily food of all the higher orders of animals, as well without bone earth (phosphate of lime) as with that mineral. Would it be possible for such grass and grain to yield to the blood of domestic animals and to that of man himself, that solid earthy matter which imparts strength to human bones, and to those of oxen, horses, sheep, and swine? Certainly not. Although *iron* is always present in the food and blood of animals, no farmer ever killed a calf, a pig, or an ox, which had iron for the frame of its system. No anatomist ever saw a bone in the body of a person, formed of other earthy atoms than such as Providence had fitted for this peculiar function in the animal economy.

The brains and muscles of all animals contain both sulphur and phosphorus as constituent elements. If their daily food, derived as it is from the soil, lacked either sulphur or phosphorus, must not this radical defect in their nourishment soon induce weakness and disease, and finally result in premature death? To prevent consequences so disastrous and so obvious, Nature refuses to organize plants without the presence in the soil, *in an available form*, of those peculiar atoms adapted alike to the wants of vegetable and animal vitality. This wise provision should be studied by every one who desires to enjoy sound health and a long and happy life. Most of the "ills that flesh is heir to," as well as most of the maladies of plants, have their origin in the violation of Nature's laws.

The growth and constitutional vigor of all living beings, not less than the revolution of the earth on its axis, are governed by immutable laws. One of these appears to be, that an atom of carbon (charcoal) shall not perform the function of an atom of iron; nor can an atom of iron perform the office of an atom of carbon, or that of any other element concerned in the organism of plants and animals. There are only

some fifteen kinds of elementary bodies used by Nature in forming every vegetable and animal substance produced on the farm, in the orchard, or in the garden.

The science of Rural Economy consists in the systematic study of atoms, and the laws by which they are governed, whether they exist in solid or crumbling rocks, in loose earths, in vegetable or animal mold, in fermenting manure, in the living tissues and cells of organized beings, or in the form of invisible gases diffused through the atmosphere. Every product of agricultural labor is either a vegetable or an animal substance; and in its production, not an atom of new matter is called into existence. In the language of science, all matter which is neither vegetable nor animal, including air and water, is *mineral*. All minerals are either solids, like sand, clay, and lime; or liquids, like water; or gases, like common air. The farmer deals largely with atoms in each of these forms; and hence he should be familiar with the several sciences which treat of natural phenomena as witness in the mineral, vegetable, and animal kingdoms. He should know that plants alone can subsist on mineral, or disorganized food — that if there were no plants in the ocean nor on land, neither marine nor land animals could have a being. In the absence of all vegetation, it is obvious that all animals must be carniverous, or cease to consume organized aliment. Being wholly dependent on mutual destruction for the means of subsistence, every day would diminish the aggregate supply of food, and the last animal would soon die of starvation.

From the above reasoning, it is plain that vegetable life is older on this planet than animal life, and that plants may have flourished thousands of years before the lowest type of a being which depended wholly on organized food for subsistence, was created. It will also be seen that the lines of demarkation between animals and plants is well defined, by the fact that the latter can organize the elements of all vegetable and animal substances into these compound bodies, which the former can not do. All plants *produce and increase* organized matter; all animals *consume and diminish* the quantity of organized food.*

### WHAT THE COUNTRY HAS LOST BY IMPOVERISHING ITS SOILS.

Taking the census of 1840 as the basis of the calculation, and adding no more than the usual increase, and the number now employed in agriculture in the United States, does not vary much from five millions. The number of acres which they cultivate is not known. In the State of New York there are some 12,000,000 acres of improved land, which includes all meadows and enclosed pastures. This area employs about 500,000 laborers, being an average of 24 acres to the hand. At this ratio, the number of acres of improved land in the United States is 120,000,000. But New York is an old and more densely populated State than an average in the Union, and probably 25 acres per hand is a juster estimate for the whole country. At this rate the aggregate is 125,000,000. Of these improved lands, it is confidently believed that at least four-fifths are now suffering deterioration in a greater or less degree. The fertility of some, particularly in the planting States, is passing rapidly away: in others, the progress of exhaustion is so slow as hardly to be observed by the cultivators themselves. To keep within the truth, the annual income from the soil may be said to be diminished ten cents an acre, on 100,000,000 acres, or on four-fifths of the whole.

This loss of income is $10,000,000, and equal to the sinking of a capital of $166,666,000 a year, paying 6 per cent, annual interest. That improved farming lands may be justly regarded as capital, and a fair investment when paying 6 per cent. interest, and perfectly safe, no one will deny. This deterioration is not unavoidable; for thousands of skillful farmers have taken fields poor in point of natural productiveness, and instead of diminishing their fertility, they have added ten cents an acre to their annual income, over and above all expenses. If this wise and improving system of rotation, tillage, and husbandry were universally adopted, or applied to the 100,000,000 acres now being exhausted, it would be equivalent to creating each year an additional capital of $166,666,000, and placing it in a permanent real estate, where it would pay 6 per cent. annual interest. For all practical purposes, the difference between the two systems is $333,333,000 a year, to the country.

There is another view of this important subject, which is worthy of profound consideration. Of the 12,000,000 acres of improved land in the State of New York, 1,000,000 are so cultivated as to become richer from year to year. These improving soils are in the hands of 40,000 cultivators, who take and read agricultural journals, and nobly sustain the State and County Societies of that Commonwealth.

3,000,000 acres of the 12,000,000 are so managed as barely to hold their own in point of fertility.— These lands belong to a class of farmers who do as well as they know from personal observation, and seeing how reading men improve their estates and domestic animals.

8,000,000 acres are in the hands of 300,000 persons who still adhere to the colonial practice of extracting from the virgin soil all it will yield, so long as it will pay expenses to crop it, and then leave it in a thin, poor pasture, for a term of years. Some of these impoverished farms, which 75 years ago produced from 20 to 30 bushels of wheat, on an average, now yield only from 5 to 8 bushels. In an exceedingly interesting work, entitled "American Husbandry," published in London in 1775, and written by "an American," the following remarks may be found on page 98, Vol. I:*

"Wheat in many parts of the province [New York] yields a larger produce than is common in England. Upon good lands about Albany, where the climate is the coldest in the country, they sow two bushels and better upon one acre, reap from *twenty* to *forty*; the latter quantity, however, is not often had, but from twenty to *thirty* are common; and with such bad husbandry as would not yield the like in England, and much less in Scotland. This is owing to the *richness* and *freshness* of the land."

According to the State census of 1845, Albany county now produces only 7½ bushels of wheat per acre, although its farmers are on tide water and near the capital of the State, with a good home market, and possess every facility for procuring the most valuable fertilizers. Dutchess counnty, also on the Hudson River, produces an average of only 5 bushels per acre; Rensselaer, 8; Wyetchester, 7; which is

* See Dumas — Balance of Organic Nature.

* We are indebted to the well stored library of JOHN S. SKINNER, Esq., the veteran editor of the "Plow, Loom, and Anvil," for the use of this old and curious work on the early agriculture of this country.

higher than the average of soils that once gave a return larger than the wheat lands of England, even with "bad husbandry."

Fully to renovate the 8,000,000 acres of partially exhausted lands in the State of New York, will cost at least an average of $12.50 per acre, or an aggregate of $100,000,000. It is not an easy task to replace all the bone earth, potash, sulphur, magnesia, and organized nitrogen in mold, consumed in a field which has been unwisely cultivated 50 or 75 years. Phosphorus is not an abundant mineral anywhere, and his *sub-soil* is about the only resource of the husbandman, after his surface-soil has lost most of its phosphates.

The 300,000 persons that cultivate these 8,000,000 acres of impoverished soils, annually produce less by $25 each, than they would if the land had not been injured. The aggregate of this loss to the State and the world is $7,500,000 per annum, or more than 7 per cent. interest on what it will cost to renovate the deteriorated soils. There is no possible escape from this oppressive tax on labor of $7,500,000, but to improve the land or run off and leave it. That the latter has been done to a large extent, is shown by comparing the population in rural districts at the census of 1830 with that of 1840. In nearly half the towns in the State, population had *decreased*, notwithstanding the rapid growth of cities and villages, demanding an increase of farm laborers to supply the mere local markets. The canals of New York have operated to hasten the exhaustion of its soils, just as a railroad to California would aid in extracting gold dust from its now unwashed sands. While the canals and railroads of New York convey a thousand tons of the few *precious atoms* in the surface of the earth, which can alone form bread and meat, to tide water, they do not carry back from tide water one ton of the raw material for making crops of any kind. A million tons of human food pass down the Mississippi where one ton of the elements of such food ascend "the father of waters."

It will be seen, on referring to the census of 1840, that the five States of Maryland, Virginia, North and South Carolina, and Georgia, employed at that time 1,013,463 persons in agriculture. Of this number, Maryland had 69,851; Virginia, 318,771; North Carolina, 217,095; South Carolina, 198,363; and Georgia, 209,383.

It is a statistical question of considerable importance, to determine how much less these laborers and the mules, horses, and oxen, which they work, annually produce, than they would had no acre of the arable lands in these States, so highly favored by climate and fertility, been damaged in the least by improper tillage. The difference in the cost of making crops on poor land and on good land, is really much greater than is generally supposed. The shrewd farmers of Massachusetts prefer giving 60 cents a bushel for Western corn, to growing this grain on their infertile soil; while the corn-growers of Indiana and Illinois are glad to sell their crops, made on rich land, at 20 cents a bushel. From these facts, is not the inference plain and satisfactory, that it costs three times more to produce a bushel of corn on *poor* than on *rich* land?

To do full justice to this interesting problem, "By what means, and to what extent, the soils of the five States above named have been injured," would fill a volume. A residence of more than two years in the most southern of these States, connected with its agricultural press, and devoting much time to the study of soils and their products, will warrant the writer in expressing an opinion on the weight of evidence collected from all sources within his reach. The annual loss on the labor of each hand and mule is believed to be $30. This estimate is too high on some plantations, and too low on others. The only reason why so many slaves have been sent South during the last 25 years, (and thousands sent out of Georgia,) is, that the labor of a person is worth twice as much to cultivate rich, fresh land, as poor, old land.

If the estimate of a yearly loss of $30 on each hand, and the domestic animals which he works, be not too high, then the aggregate exceeds *thirty millions of dollars*. This is equivalent to having sunk a productive capital invested in farming lands, *at a cheap rate*, of *five hundred millions of dollars*, yielding 6 per cent. annual interest. While England and France have derived hundreds of millions of profit and revenue from the tobacco and cotton exported from Georgia, the Carolinas, Virginia, and Maryland, a large share of all the proceeds received for these staples, which have so desolated the earth over immense districts, has left these old impoverished states, with their emigrating citizens, *never to return*.

This unwise system of tillage is extending rapidly in the United States.

Manufacturers, merchants, and mechanics, often shift their settled policy, when they see a profit in making a change. But whoever expects millions of isolated farmers to change suddenly their practices, ideas, and systems of culture and husbandry, shows that he has not labored twenty years to substitute an improving for an exhausting system of field culture. At a fair estimate, there are at this time 2,741,966 persons employed in agriculture in the fifteen slave-holding States. Before the study of rural economy as a science will become as popular as the study of politics, law, and medicine, the South will have at work in the field, a force of five millions of operatives. Who does not see that the wise and skillful employment of this vast power of production, is a matter of inestimable consequence to all the planting States, and to unborn millions who must dig their daily bread from impoverished soils, if the mighty work of land exhaustion is to increase and extend, as population spreads over the cotton, tobacco, and sugar growing parts of the Union? Propagated by buds instead of seeds, the sugar cane will be found, like the potato plant, less able to withstand the customary abuses of the earth — the rude violation of the laws of nature — than tobacco, corn, wheat, and cotton plants. But all these are suffering in vital force and constitutional vigor, by reason of their defective food, in partially exhausted soils. Any living being may habitually take a very little poison into its system without destroying life. Pursue the practice of poisoning the blood of animals or the juices of plants, only to a very small degree, and it will tell in the course of a few generations, in strange, new, and incomprehensible maladies. An instructive and useful book might be written on the diseases of cultivated plants; to say nothing of those of domestic animals. Mildew, mold in cheese, rust on wheat and cotton, and fungi, believed by naturalists and botanists to be so injurious to potatoes, are all, in a good degree, like other vegetable creations, subject to the control of human industry and science.

If we visit the farmers of the Northwest, we shall find the popular feeling developing itself after this

fashion: "Let us construct railroads and canals, improve our navigable rivers and lake harbors, purchase the best farm implements, and then employ all our capital and energies in transforming every atom in the soil which will make grain, provisions, and wool, into those marketable commodities, and send them to distant cities and nations for consumption." This agricultural and commercial enterprise is complacently regarded as the wise development of the agricultural resources of a new country! Although the inevitable results of this practice may be seen in each of the old thirteen States, as in the valleys of the Mohawk and Hudson, yet it is confidently believed by sanguine farmers, that the truly rich soils of the West are inexhaustible.

Whoever will examine this great national question, of taking every thing out of the land and putting back nothing, must be satisfied that no other than the most disastrous consequences can follow. The number of laborers employed in this simple operation, increases at the rate of 200,000 a year, in the United States.

To repair the damage already done to the soil, will cost over one thousand millions of dollars.

### S. W.'S NOTES FOR THE MONTH.

THE NEXT SENECA CO. AG. FAIR.—The rural village of Ovid has fairly won the palm from Waterloo and Seneca Falls, by overbidding them something less than $100 for the privilege of locating our next Cattle Show there. Well may friend MOORE, of the Rural New-Yorker, boast of the number of his Ovidian subscribers, as no other hamlet or village rural knows better how to keep up with the spirit and intelligence of this progressive age, than this same Ovid. For the benefit of those who have not travelled through this all fertile alluvial county of Seneca, let me say that this village, which takes its name from the most voluptuous poet of the Augustian age, is situated on the western brow of the dividing ridge which separates the Cayuga and Seneca lakes. From here you look down upon the broadest expanse of the Seneca, four miles distant, as upon a surface of moulten silver; what the perspective lacks in sterile grandeur of mountain precipice, or basaltic rocky cliff, is amply compensated by the richness of the picturesque landscape — green fields now and then, yellowing into harvest; neat and often ambitious farm-houses; capacious, painted barns; grain stacks and hay stacks; extensive orchards; all of which is relieved by very many patches of dark brown woods of very tall deciduous trees; — filling the mind with the idea of the land's fatness and man's thrift. But, reader, this half shire, romantically perched little village, is not by any means as beautiful as it will be; as it grew up in a utilitarian age, before DOWNING's day, you will not now see many cottages or sub-rural houses standing a little back from the street, with French windows looking out upon shrubs and flowers; but the conviction will force itself upon your mind, that this is the place for them, and that soon here they will be seen.

THE WEALTH OF OUR FARMERS.—It is a common observation that the farmers are full of money—"no debts to pay, no notes in the bank." When you find a bank put to it for notes to pay a check, the Cashier will tell you that the circulation has been paid out for farmers' products, and that it has not yet left their pockets. But I take it that the pecuniary ease of the farmers is not to be attributed to the high prices they have received for their surplus products, nor to the large amount of that surplus, but only to their superior industry, economy, self-reliance, and the paucity of their wants, growing out of their comparative expenseless social position. Few farmers seem to be aware of the great pecuniary saving incidental to life on a farm; hydra-headed corporation taxes do not reach them there; pauperism in its endless phases, from fixed domiciliated want to varied, daily, ambulating beggary and fraud, is only of the overgrown village or large town. 'Tis true that an occasional subscription paper may sometimes annoy the farmer, and beard him at his home; but they do not haunt him nightly, nor stare him in the face at all hours, and at every corner of the street. And then the expense of following the ever changing tyrant Fashion — the daily sacrifice made to the eyes of others — may be well dispensed with on the farm, where prying eyes from without are rarely seen. 'Tis true, of late, that many sons and daughters of thrifty farmers do follow the expensive fashions in dress, to a certain extent; but rarely beyond their ability to pay by the avails of their own superior industry. There may be among them the votary of fashion; but never its culpable slave.

It is said that the revenue of the United States will this year amount to $38,000,000 of dollars. The better part of this great sum is received for duties on imported luxuries and the finer articles of dress. Although two-thirds of the people are farmers, it is not supposed that one-fourth part of this great tax is paid by farmers. Hence, as I said before, farmers are rich only from the moderation and simplicity of their wants, and not from the high prices they receive for the products of their industry.

CALIFORNIA.—There seems to be a great discrepancy between the accounts by the private letters from California, and those of the California newspapers. All the California papers hold but one language, which may be summed up in the following lines of BEN JONSON:

> Here, are the golden mines,
> Great Solomon's Ophyr! He was sailing to't
> Three years; but we have reach'd it in ten months.
> This is the day wherein, to all my friends,
> I will pronounce the happy word, BE RICH.

Yet, sad to say, from letters both published and private, we learn that within a short distance of these very printing offices, in the month of December last, more destitution, sickness, exposure, and positive suffering has been witnessed in a day, than can be met with in the United States in a twelvemonth — that "five out of every twelve are sick"— that thousands would return to the United States, had they the means to do it. A letter from Michigan states that money was scarce before; but since the California fever, it commands 25 per cent., secured on bond and mortgage by the infatuated farmer, who thus puts his fee-simple "upon a cast," to raise money to take him to El Dorado. Another letter, from Wisconsin, computes the amount of money already abstracted from that new State, by California adventurers, at the incredible amount of $3,000,000.

THE FORTY QUART COW.—Mr. H. SMITH, of Covert, says that his cow will give forty quarts of milk per day — that "he has weighed one mess, not the largest, which weighed 32½ lbs.;" this is only about sixteen quarts. JOSEPH WRIGHT says he must have some better evidence of a forty quart cow, before he goes to Covert with his $500. S. W.

## Answers to Inquiries.

MESSRS. EDITORS :—I am a reader of your paper, and find many things in it to commend, and it would be strange if there was nothing to condemn. I wish to see something on the opposite side or against the State's founding an institution to make scientific farmers. Now, if this could be accomplished so as every tax paying farmer could share equally, it would be admirable; but we have many institutions with endowments by the State, which only benefits that class which are well able to bear the expense without calling in the aid of poor tax payers. In my opinion, it would be like some advertisements we now and then read: Mr. A. has some fine bull calves to dispose of, worth from $100 to $300; Mr. B. has bucks, say $50, &c.; while his less noted neighbor has equally as good stock, but no one to puff him; therefore he must take up with one quarter of the above price. And again, the poor farmer would have (as now) to take up with the worst land, such as light sand or hard clay, which would cost the most to put in a state to produce; so I come to the conclusion not to tax him for the benefit of those that can do without it. I make the above observations merely to draw out your views on the subject.

One or two more questions, and I close. You write for the information of farmers: how many of your readers understand the phrases you use in analysing soils? Farmers have been so hoaxed with Latin terms by Lawyers and Doctors, that they think there is something behind the curtain. What will our grandchildren think when looking into a volume of the Genesee Farmer they see an advertisement with bolus and bottles. W. T.—*Alexander, March*, 1850.

We thank our correspondent for speaking his mind freely in the above note. He "wishes to see something said against the State's founding an institution to make scientific farmers." This seems to be hardly necessary; for nearly thirty years have elapsed since serious efforts were first made to establish agricultural schools in this State, and down to this hour no legislature has ever been convened in the capitol, that was willing to give the first dollar to aid in so great and important an undertaking. Why labor to kill a thing which never had vitality? The opponents of agricultural schools have it all their own way, and ought to be satisfied.

"W. T." seems to think that persons having choice domestic animals for sale should not advertise the public of the fact, although this information does no more than intimate to such as desire to purchase "fine bull calves," where they can be found. Not only must there be no schools for the improvement of young farmers, but there should be no advertising of anything which an agriculturist has to sell.

Our correspondent asks: "How many of your [our] readers understand the phrases used in analysing soils?" We answer, several thousands; and what is most encouraging, the number is daily increasing. The wild Indian who can count ten, and understands the value of each number from one up to the first decimal, finds eleven, twelve, and thirteen, just as incomprehensible terms as "W. T." does oxygen, hydrogen, and carbon. There is not a particle of difference. Thirteen is a worse word for a child to learn and fully comprehend, than the *name* of any visible or ponderable substance treated of in agricultural chemistry. If a farmer knows little or nothing of *chlorine*, which forms 60 lbs. in 100 of dry common salt, it is a good reason why his children should be better informed of the nature and properties of *salt*, than their father. As every new child born in a family must have a name different from all other sons and daughters, to distinguish it, so every new substance discovered in the progress of the arts and sciences, must have some name to designate and identify it. What better word will express our idea of sulphur, than *sulphur*; or of nitrogen, than an important element in nitre or saltpetre? There are less than twenty simples which form every plant and every animal on the globe; and are twenty names too many for an intelligent man or woman to learn?

Instead of making the Farmer too scientific, and too learned in the study of soils, we have erred, if at all, in the other direction. We should have labored more to convey to every reader a clearer idea of the matter in the soil which forms wheat, corn, oats, potatoes, and grass. It is *things*, not theories, that all cultivators should carefully investigate, and learn the true import of those natural laws which an all-wise Creator has appointed for the government of animate and inanimate matter. Those that have studied longest and closest, discover something of the height and depth of their ignorance, and of the inestimable value of well developed reason in practical agriculture. Not to discover that there is great room for improvement, indicates a very limited view of the possibilities in tillage, husbandry, and the education of millions of children, who are so soon to fill our places as the sovereign rulers of the State and Republic.

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MESSRS. EDITORS :—I wish that you or some of your correspondents would give us the analysis of the soil and sub-soil that has grown a pear tree to the age of forty or fifty years, and done it in good, handsome style, with an abundance of fruit and of magnificent growth. I have seen such trees in this country, and I am sure that if I could remove the earth where it grew, sub-soil and all, into my garden, it would there produce another tree as healthy and fruitful as it did in the other location.

Is it not reasonable to conclude that the pear tree, like all other trees, grains, and vegetables, has some peculiar food in the soil, that it cannot live without. When we reflect that it grows in Sweden, France, Spain, England, Ireland, and in the State of Georgia, and in almost all the States, we must conclude that it is not badly affected by heat or cold. From my own observations and the observations of travelers, I am confident that when we find out what peculiarity of soil it wants, and how to prepare that soil, we are doing more for the tree than we are to talk of frozen sap, high training, low training, digging, no digging, and all such speculations put together.

As the season for transplanting has almost arrived, I wish that you or some of your correspondents would furnish a careful description of the soil, sub-soil, and every other circumstance in the soil, that has for the last forty or fifty years supported a healthy, fruitful, fine growing pear tree, as above desired. And if it does not cost over ten dollars to a tree, I will prepare the ground for a few of the finest varieties this spring. G. WIBORN.—*Victor, N. Y., March*, 1850.

The earthy substances drawn from the surface and sub-soil, by a growing pear tree, are pretty well known. They are such elements as the wood, leaves, and fruit of the tree, yield on a critical analysis; and such as a peck of good unleached ashes and slaked lime, in equal amount, will supply to the soil. If it is poor in mold, some well rotted manure, chip dung, or swamp muck, should be mixed with the lime and ashes. The soil in which apple, pear, and peach trees are to grow, should not be made very rich with stable manure, as it tends to produce an excess of wood, and much of that not perfectly matured.—Pounded bones are valuable to put into the earth about the roots of pear trees. The best fruit tree soils in the world abound in bone earth, or phosphate of lime; but all hard wood ashes also contain this important fertilizer. Mix ashes and lime thoroughly with the soil around the tree, and beyond the extreme ends of its roots.

MESSRS. EDITORS:—Relying on your pledge made to a brother farmer in your January number, *I will try.*

First, to institute an inquiry for the general good both of farmers and all others who keep cows. Last spring I lost an excellent cow. She died in about two days after she calved, with what we call the calf fever. My son lost another in the same way, about the same time. We have lost two or three others within a few years past. My son has one sick now with the same disease. Several died in this neighborhood last spring, and I bear of others sick now. I have been a farmer all my days and am now over sixty years old, and never have been troubled with my cows in this way, till within a few years past. I formerly fed my cows on hay through the winter, and before calving I gave them a few messes of potatoes to loosen their bowels, and had no trouble. Within a few years I have fed them mostly on corn fodder, and have not been so particular about the potatoes previous to calving. Now, a query arises in my mind, whether corn fodder is the best food for a cow that is with calf; and not being a chemist myself, I wish the subject to go into the hands of men of science, for investigation, and the results of that investigation published in the Genesee Farmer. Also, the cause of the disease, and preventive, and best cure, if any. My cows are generally in good order. When taken with the disease, they first appear dumpish, disinclined to food, eyes dull; they soon get down and never get up again. They invariably swell up after a while, and appear in great distress till death ends their sufferings.

Now, Messrs. Editors, if you can give any light or instruction on this subject, or obtain it from practical or scientific men, you will bestow a great blessing on your countrymen and on that most invaluable animal with which God ever blessed the human family—the Cow. WM. PARSONS. *Millville, N. Y.*, 1850.

If Mr. PARSONS had now, as formerly, a few potatoes to feed his cows before they drop their calves, they would unquestionably suffer far less, if at all, from this strictly parturient fever. If he can not well raise green feed of any kind, he should mess his cows with bran wet with brine sufficient to keep the bowels loose, for several days before calving, and they will not die of the malady described by him. Dry corn fodder and dry hay are constipating, and tend to inflammation in the system when under considerable excitement from other causes. The disease is an inflammation, and should be prevented; and it may be by the use of carrots, turneps, beets, potatoes, or cabbage. Green food, not in excess, but in regular feed with dry forage, and a reasonable allowance of salt, will enable Mr. P. to save his cows and to obtain from them a generous flow of milk.

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MESSRS. EDITORS:—I noticed an article in the February number of the Farmer, in answer to the inquiries of "P. J. W.," on the properties of plaster. Your theory is, no doubt, true, and satisfactory so far as you went; but I have a few questions to add to those that have already been given.

1st. Does plaster possess any soluble substances, or those that will be destroyed by its being wet? [It does not.]

2d. Does it retain its power so as to act on vegetation the second year? [It does.]

The following experiment gave rise to the preceding questions:—Two years ago this spring, I had a field of about four acres which I sowed to oats; I also seeded it, and after bestowing upon it proper labor, I sowed a little plaster on about half an acre of it. The first year there was no perceptible difference in the oats: but when I cut the grass the next year, that part on which the plaster was sown was exceedingly stout, the stalks were large and long, and from that half acre I received two loads of hay; but from the other three and a half acres I received about three loads. Now, I would like to know whether I must ascribe this great difference of ratio to the plaster, or look to some other source for the cause. E. N.—*Oneida Castle, N. Y.*, 1850.

Plaster is so valuable a fertilizer, that measures should be taken to cheapen its transportation to the lowest attainable figure. Lime, ashes, and bones should also be carried at the minimum charge on railroads and canals. Plaster made the gain.

MESSRS. EDITORS:—I am preparing a room in my barn for a threshing machine; a corn sheller; a straw, hay, and corn stalk cutter; and I wish to procure and add a mill for grinding coarse grain for feeding purposes. It has occurred to me that all these might be operated upon, or rather driven by, a wind-mill. I mention these matters for the purpose of asking you whether you, or any of the contributors to the Genesee Farmer, know anything of the manner of construction and cost of a wind-mill? And whether there is any economy in the use of that kind of propelling power? Will you, or any contributor, be kind enough to communicate whatever is known on this subject? Would it be asking too much to request you to name the best and most approved of the four different machines mentioned above? If not, be pleased to do so. E. GUYER.—*Highland, Pa., May*, 1850.

There is but one wind-mill of any account now in the United States, which is known to us, and that is in the city of Washington. The wheel is some 60 feet in diameter. It is used for grinding grain, and is aided by steam. In Holland and England, as well as in this country, steam and horse-power are found to be more economical. A wind-mill is a simple and very primitive contrivance.

It would hardly meet our views of propriety to select the threshing machines, straw cutters, and corn shellers of particular manufacturers, and praise them, with the implied condemnation of all others. We aim to give all good mechanics an equal chance in our advertising columns, and avoid everything that looks like puffing or partiality.

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MESSRS. EDITORS:—Many farmers who have used Wheatland plaster for years, think its effects upon the soil are not as good now as formerly, and have consequently discontinued its use to a great extent. They think the plaster has deteriorated in value, from some cause—either the beds are not as pure as they used to be, or, perhaps, lime-stone or some other stone is mixed with the gypsum. If Dr. LEE has analyzed the plaster of these beds, and can tell us whether or not our suppositions are well founded, he will much oblige many readers of the Genesee Farmer.

We have not analyzed any of the quarries of plaster in Wheatland, and we should be sorry to believe that any one would add marl, of which there is an abundance in the neighborhood, to the pure mineral. The difficulty doubtless is, that your soils are sick of gypsum, from the lack of bone-timber, potash, magnesia, and common salt, in the land. Plaster is not everything that nature demands to form a clover plant, or a crop of wheat, oats, or corn. Farmers must learn to take better care of the potash, phosphorus, and magnesia, in their soils.

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MESSRS. EDITORS:—Could not the culture of indigo be resumed at the South, by adopting what is called the hot water process, latterly in use in India for extracting indigo from the leaves of the indigo plant? There is said to be a great saving of time by this method, and all danger to the health of the workmen, from the deleterious effects of the gases evolved in the old process of fermenting in water of the temperature of the atmosphere, is avoided. And could not the kermes producing oak be introduced at the South, for the purpose of producing kermes for home consumption? It is in some respects much superior to cochineal as a dye; and there is none of it imported, so far as I am aware. J. E.

Undoubtedly indigo culture will some day be resumed at the South; with cotton at its present price, its production will pay better. A large planter, and a late U. S. Senator, has discussed the subject; but the production of indigo is exceedingly unpopular.

The "Kermes oak" we have not studied at all.

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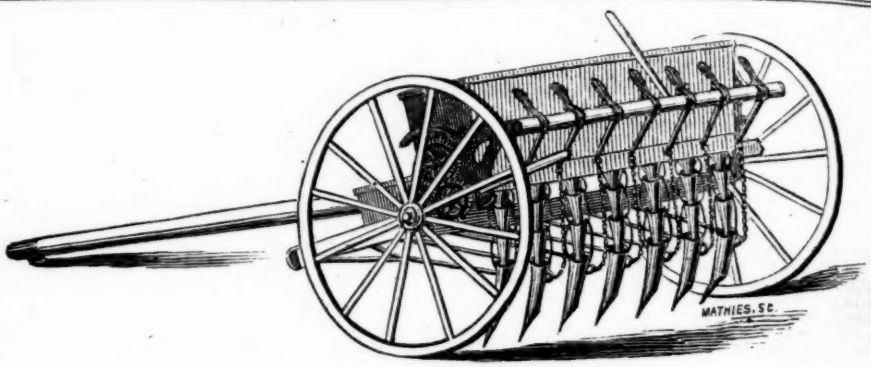
TO CATCH RATS—Set a common fox trap; over which spread a piece of cotton or linen cloth, sufficiently large to cover, and sprinkle some meal over the pan—and you *have* him. At least I did. T. R. S.—*Omar, N. Y.*




BICKFORD AND HUFFMAN'S PATENT GRAIN DRILL.

### BICKFORD & HUFFMAN'S DRILL.

SOME of our correspondents have expressed their satisfaction with the operation of Bickford & Huffman's Drill. W. S. FULLERTON, of Livingston county, in this State, expressed the opinion that, with slight improvements, this drill would be the best in use. We now give our readers an engraving of this Drill. A correspondents in Wayne county, writes us—"From what I have seen and been able to learn of this machine, I am inclined to think it one of the most valuable and perfect of any thing of the kind yet offered to the public. There is quite an improvement in adjusting with accuracy the quantity of seed distributed to the acre, which is effected with great precision by the use of toothed wheels of different sizes, increasing or diminishing at pleasure the revolutions of the distributing cylinder. The teeth may be elevated separately or simultaneously, according to the wish of the operator, and the drilling tubes themselves are remarkably well made.

BICKFORD & HUFFMAN manufactured and distributed to a considerable extent, last year, a Grain Drill of their own, which, so far as I have learned, gave great satisfaction. The one they now manufacture contains some decided improvements on their machine of last year. For cheapness and excellence combined, I do not know where farmers can get a better machine for the purposes intended; and I have no doubt it will prove of great service to the agricultural community, now that the advantages and increased productiveness resulting from drilling in wheat has been so fully and satisfactorily proved."

### IMPROVED SHORT-HORNS—BATES' STOCK.

IN my February article on this subject I felt it a duty to place before the public the fact that Mr. BATES considered the *Duchess blood* THE CHOICEST BLOOD in his herd. Having proved this by *undisputable* evidence, and having also shown that Mr. VAIL's bull Duke of Wellington, bred by Mr. BATES, his Meteor, and other Bates bulls he had sold to gentlemen in this country and Canada, possessed, in addition to their other good breeding, more of this Duchess blood than 3d Duke of Cambridge, I think I may safely rest the matter here.

As, however, a *direct* attack has been made upon Mr. VAIL's very valuable bull Duke of Wellington, by endeavoring to depreciate in the estimation of the public his sire Short Tail and his dam Oxford Premium Cow, it may perhaps be well to show the utter fallacy of the attack. That Short Tail was a great favorite with Mr. BATES, and considered by him as one of his *best* sires, is well known to most breeders of Short-Horns; and were all other evidence wanting on this point, Mr. BATES' "opinion as shown by his practice," is fully recorded in the volumes of the English Herd Book. As to Oxford Premium Cow, Mr. BATES' estimate of her value is equally well known, and as a farther proof of her excellence, I need only add that this same cow was awarded the *first* premium by the Royal English Agricultural Society as THE BEST SHORT-HORN COW—competition open to *all England*.

In the last letter which Mr. BATES addressed to Mr. VAIL, speaking of the merits of the two animals in question, he says, "your Duke of Wellington is decidedly a better bull than 3d Duke of Cambridge." To show that Mr. BATES' opinion of the great value of Wellington as a sire was correct, I quote an extract from a letter Mr. VAIL received from Col. HAMPTON, of South Carolina, to whom he sold a bull calf, Belvidere, got by Duke of Wellington out of Lady Barrington 3d. Col. H. paid $300 for this calf. He says: "The bull I purchased of you is not only the *best I ever had*, but *superior* to any I *ever saw*. His get are very beautiful and exhibit ALL THE EVIDENCES OF HIGH BLOOD. I have been a breeder of Short-Horns nearly *forty years*, have *imported several bulls*, and bought at various times others from the *best herds* at the North, but have *never* owned one whose stock has given me such *entire satisfaction*." Col. SUMMER also speaks in the highest terms of praise of this fine animal. I might add numerous other testimony showing the great value of Wellington, but I deem it unnecessary.

The main positions in the article alluded to, are just as easily refuted as the unjust attack on Duke of Wellington. The article, however, *in itself* is so *very inconsistent*, and the applications are so *wholly inappropriate* and unreasonable, that I deem any farther notice of it, or of whatever the writer may hereafter say on the subject, as entirely superfluous.

Mr. VAIL has recently sold another Bates bull, American Comet, to Mr. BELKNAP of Michigan, for $300, and also two cows and two calves about six months old for $700 more, making in all $1000. He has also still more recently sold two animals to the President of the New Hampshire Agricultural Society. S. P. CHAPMAN.—*Clockville, N. Y.*

## Wheat Husbandry.

### "RUST" ON WHEAT.

It is sometimes surprising to observe the propensity which is shown by many persons, to be mystified in regard to some of the most simple operations of Nature; overlooking the simple and direct manner in which she always produces effects, men frequently appear to be deluded with the idea that there must be some hidden and secret workings in Nature's laboratory, not visible to the vulgar eye, by which she introduces into being many of her most trivial productions. Hence, many learned men attempt to explore some indirect and round-about way of discovering the origin of things; and by so doing, oftentimes lead others into error, thereby verifying the adage of "the blind leading the blind." An instance of this kind may be found in regard to the cause of the "rust" of wheat; respecting which, in the mind of an observing, practical farmer, there is not a shadow of doubt or mystery; but in the minds of nearly all of those who have written upon that subject, all seems dark and mysterious; consequently they have fabricated the most unnatural and irrational hypotheses. Some writers have supposed the *rust* to be a "fungus plant," having "invisible seeds, which were carried by the wind among the standing grain, and coming into contact with the straws and leaves, were received into their pores, where they took root, grew, and fed upon the sap; thus robbing the grain of its nourishment"! Other writers have conjectured that the "invisible seeds" were lodged in the ground, whence, having been received into the mouths of the small sap vessels, they entered into the circulation with the sap of the plant—that by some of nature's mysterious operations they finally burst the external covering of the stem and leaves, grew upon them as a fungus parasite, robbed the plant of its juices, and caused the grain to "shrink." And "last, though not least," of all the preposterous conjectures concocted in the human brain, in regard to this subject, is the *new* supposition, that "as the wheat plant, when about to head, has been known to send a *tap root four feet into the earth*, to procure nutriment, (!) it comes in contact with cold clay, or a sour, wet sub-soil, turns back in dispair, and dies;"—that, "in accordance with the laws of nature, insects, or rust, which is itself a fungus, or vegetable insect, comes to finish the work of devastation on the dying wheat"! Shade of Ceres! deliver us from such tissues of absurdities!!! It is not enough, it seems, that we must lose our wheat crops by rust, "in the natural way," but we must have our craniums crammed (I had almost said *cracked*,) with these ridiculous conceits of *rusty* brained writers, who, it would seem, knew as little of the subject about which they wrote, as a goat does of Algebra!

But seriously; these fine spun hypotheses and net-works of mysteries are quite too absurd to satisfy the mind. 'Tis true they are sent forth as suppositions and conjectures only; but what sensible, practical man, can, for a moment, entertain such preposterous suppositions and conjectures? Who ever discovered a plant of any description, fungus or other, growing out of and feeding upon the living matter of another plant; the former subsisting upon and robbing the latter of its juices, so as to prevent it from perfecting its seeds? There may be, and no doubt are, many things that my "philosophy never dreamed of." I may be told of the "mistletoe" growing upon the oak, and of the "live-for-ever," "growing upon nothing." Be it so; but, I ask, has any one ever yet discovered that the mistletoe robs the former of its juices? No one, I believe, will assert that it does, any more than that the "live-for-ever" robs the latter.

There is no parasitical "fungus" growing upon the living wheat plant in the form of "rust;" what has been supposed to be a "fungus" upon it, is nothing but the crude and undigested sap of the plant itself, which, by the rupture of the sap vessels, runs out and dries on the outside of the straw and leaves. The rupture of the sap vessels is caused by a too vigorous growth of the straw, and consequently a redundancy of sap, induced by warm, damp, and "growing weather," early in the season of spring. If, during this plethoric state of the plant, with its sap vessels distended to their utmost capacity, and just as the grains begin to form in the head, a few days of excessively hot weather come on, the heat swells the sap, and thus ruptures the sap vessels in an immense number of places on the straw and leaves. When the sap first runs out of the ruptured vessels, it is clear and like water; in a few hours, however, it begins to change its color to a dull red, in which state it is called "red rust;" in the course of a day or two it usually changes to a dark brown color, and it is then called "black rust." The effect in the latter case is, that so much of the sap of the plant is withdrawn from it and wasted, that the seed or grain is not filled out, and the produce is called "shrunk wheat." If the hot weather comes on after a large portion of the grain is formed, and continues for a short time, (from one to two days only,) the straw is "struck" with "red rust," and the grain is then generally but little shrunk. If the excessively hot weather occurs at an early period of the filling out of the grain, and continues two, three, or four days, the wheat is usually "struck" with black rust," (the rust within that time generally becoming dark colored,) and the grain is then, most commonly, very much shrunk. The injury done to the crop is in proportion to the redundancy of sap and the degree of heat. Any person having good eyesight can, at the proper season, see the whole process without the aid of a lens, or magnifying glass. I observed it closely, with and without a lens, many consecutive years, during which time my wheat crop was very much injured, and sometimes almost destroyed, by rust. My land was in good condition and well cultivated. I was then in the habit of sowing plaster on such of my wheat fields as I had seeded with clover, for the purpose of making the clover seed take well. It had the desired effect upon the clover; but after several years of experience and observation, I discovered that the plaster caused a superfluous growth of straw with a redundancy of sap, which, with very hot weather, nearly destroyed my crops of wheat. Since I have abandoned the practice of sowing plaster, I have had but little rusty wheat, and what I have had was on black muck soil. The intervale lands (swales) frequently produce rusty wheat, because of the richness of the soil in them, and consequent excess of sap in the straw, when the uplands produce wheat free from rust. The latter, not having so much black muck, or vegetable mold, in its composition, produces less straw and less sap in the sap vessels of the plant. More or less rust, however, is found almost every year, in the swales, where the coldness of the soil retards the growth of the plant in the early part of

the season; and when the warm weather causes a rank and rapid growth of the straw, the sap vessels are of course very tender, and more liable to be ruptured by the heat. Late sown wheat is very liable to be rusted, because it comes to maturity so late in the season, that the weather is oftentimes excessively hot before it can be harvested.

As to the means of prevention, I know of none which can be relied on as specific. Preparations of the seed by means of lime, salt, copperas, &c., &c., are worse than useless, being expensive, laborious, and sometimes (as with arsenic) dangerous. It is evident that such preparations can be of no effect in preventing the superabundance of sap, nor the excessive heat, which are the causes of rust. The land should be in good condition; that is, sufficiently but not excessively rich. The seed should be sown as early as it can be done safely on account of the Hessian fly, which, it is well known, is usually ready in the autumn to deposit its nit, or egg, upon the very early sown grain. If, when wheat is becoming rapidly rusty, the grains are more than half grown, it is best to cut it immediately, unless cooler weather makes it unnecessary. If cut, it should lay in swath about half a day, more or less, so as to cure it a little, that it may not become musty in the sheaf. After a little drying in swarth, it should be raked and bound, and put up into shocks, in which situation it should be left until dry enough to put into the barn. It will be much less injured in the swarth and in shocks, than if left standing in the field uncut, because nearly all the straw will be in the shade, the rupture of the larger portion of the sap vessels by heat will be prevented, and the grains will be better filled out; beside, the air in the field is always very much cooler after the grain is cut, than it was before. If the grains are not fully half grown, the wheat cannot be advantageously cut, as in that case the straw withers suddenly, and the grains will not fill out much, if any. J. H. H.

### CORN vs. WHEAT.

EDS. GEN. FARMER:—I read, in the February number, the communication of Mr. SPERRY, on the subject of "Corn vs. Wheat;" also that of "A Gates Farmer," on "Corn vs. Wheat—again," in which he seems to doubt Mr. SPERRY'S conclusions, as he does not give the relative costs of manuring and tillage. He also thinks corn a very exhausting crop. It so happens that my farm consists of land well adapted to corn, and from experience I have adopted the theory, that as much clear money can be obtained in twenty years from 100 acres of good corn land, as from 200 acres of land devoted to wheat.

*System of Tillage.*—I plow with a large plow and double teams, making from 2½ to four acres per day; harrow well with a large, hinge harrow; plant from 20 to 25 acres per day with a machine of my own make, costing but $3, and drawn by one horse; it plants two rows at once, depositing one grain at a time and the grains 9 inches apart. When the corn begins to sprout, I commence harrowing lengthwise of the rows with my large harrow, and continue until the corn begins to appear above ground. This gives the corn a decided advantage over the weeds. I then use the cultivator freely, cut the weeds once with a hoe, after which I follow with the plow. To prevent the land from being exhausted and save the cost of manuring, I am careful to plow in all the stalks, which will thoroughly renovate and keep up the land for any number of years. I had 180 acres of corn last year, on some acres of which 120 bushels per acre grew. I plant 250 this year. I also let 250 acres more, to be planted. Any communication from my brother farmers, on the subject of corn raising, will be interesting to me. H. R. JEROME.—*Huron Co., O., April*, 1850.

### THAT MILK STORY.

IN the last Farmer I am accused by Mr. JOHNSON of concealing a part of the truth in relation to his 42 quart cow, and of misrepresenting his tin milk pail. As this is the first imputation of the kind that has ever been, to my knowledge, directly or indirectly made against me, I trust that the editors of the Farmer will give place in their columns to the following simple facts in the case, which I can substantiate, if necessary, by positive proof.

In the spring of 1848, I requested my drover friends Messrs. WOODRUFF & LAWRENCE, to look me up a cow, in the course of their travels, that would give forty quarts of milk per day. On their return they averred that they had seen no such cow, but that the day before, at Geneva, that had been told by Mr. JOHNSON that he had a cow on his farm in Fayette, which gave forty-two quarts of milk per day. The very next day I called at Mr. J.'s farm with a friend. After showing us the cow, Mr. J. remarked that the year before she had given forty-two quarts per day, but that her best yield now was only thirty-nine quarts, and that the day before he had been offerpd one hundred dollars for her by two drovers at Geneva. My friend then asked Mr. J. if he had ever measured the milk; to which he replied, that his pail held sixteen quarts, which the cow had filled three times a day. Allowing two quarts on each pail for froth, would leave forty-two quarts for the days yield. Mr. J. then, at our request, produced the pail; it was to our eyes a perfect fac simile of a ten quart tin milk pail, narrow at the bottom, partly covered at the top, with a broad open spout, of the usual form of those pails with inside strainers. My friend then told Mr. J. that if his cow would give thirty quarts of milk per day, he would give him two hundred dollars for her. Perhaps I need not here say that Mr. J. was a little offended at this implied doubt of his veracity, as he quickly and tartly replied that the cow was not for sale, and that he could afford to keep as good a cow as any other man.

Should Mr. J. have the good luck to get another calf from his cow, in order to convince him that I think I have not deceived myself, I will bet him one hundred dollars that we have a thirty quart cow in this village (Waterloo) that will give as much, or more, milk in any given time, as his much famed forty-two quart cow. JOSEPH WRIGHT.—*Waterloo, March*, 1850.

TO PREVENT CROWS FROM PULLING CORN.—Soak your seed twelve hours, in a solution of nitrate potash and sulphate of copper; three ounces of each to one bushel of seed. I have tried this solution two years, with success. Last year my neighbors complained much of the crows pulling their corn, while I saw them walk all over my field, and not a hill was pulled. C. G. LEAVENS.—*Rushford, Alleg. Co., N. Y., April*, 1850.

## NEW YORK STATE AGRICULTURAL SOCIETY.

### PREMIUMS AT ANNUAL SHOW IN SEPT., 1850.

(*Continued from page* 115.)

#### DOMESTIC MANUFACTURES NO. I.

Best pair woolen blankets, $6; 2d do, 4; 3d do, 2. Best 10 yards flannel, 6; 2d do, 4; 3d do, 2. Best 10 yards woolen cloth, 10; 2d do, 8; 3d do, 3. Best 15 yards woolen carpet, 10; 2d do, 8; 3d do, 3. Best hearth rug, 5; 2d do, 4; 3d do, 3; 4th do, 2; 5th do, Small Silver Medal. Best rag carpet, 15 yards, 5; 2d do, 4; 3d do, Small Silver Medal.

#### DOMESTIC MANUFACTURES NO. II.

Best double carpet coverlet, $5; 2d do, 4; 3d do, 3; 4th do, 2; 5th do, 1. Best 10 yards kersey, 5; 2d do, 4; 3d do, 2. Best pair woolen knit stockings, $2; 2d do, 1. Best pair woolen wove stockings, 2; 2d do, 1. Best pair woolen fringe mittens, 2; 2d do, 1.

#### DOMESTIC MANUFACTURES NO. III.

Best 10 yards linen, $3; 2d do, 6; 3d do, 4. Best 10 yards linen diaper, 6; 2d do, 4; 3d do, 2. Best 15 yards tow cloth, 5; 2d do, Small Silver Medal. Best pair of cotton knit stockings, 2; 2d do, 1. Best pair cotton wove stockings, 2; 2d do, 1. Best pair linen knit stockings, 2; 2d do, 1. Best pair linen wove stockings, 2; 2d do, 1. Best pound linen sewing thread, 2; 2d do, 1.

Articles to be manufactured within the year; and in all cases the exhibitors must furnish evidence that the articles are so manufactured.

Discretionary premiums will be awarded on articles of merit not included in the above lists.

#### MANUFACTURES.

Best piece of black broadcloth, not less than 20 yards, Diploma. Best piece of blue broadcloth, not less than 20 yards, Diploma. Best piece of woolen carpet, manufactured in factory, not less than 20 yards, Dip. Best piece of satinet, 20 yards, Dip. Best piece of cotton shirting, bleached, 20 yards, Dip. Best piece of cotton shirting, unbleached, 20 yards, Dip. Best piece of oil cloth, 10 yards, Diploma. Best piece of prints, 20 yards, Dip. Best piece of mousslin de laines, 20 yards, Dip. Best piece of black broadcloth from American wool, 20 yards, Dip. Best piece of blue broadcloth from American wool, 20 yards, Dip.

Competition open to any part of the world.

#### SILK.

Best specimen manufactured, woven into cloth or ribbons, not less than ten yards, Diploma and $10; 2d do, 8; 3d do, 3.

Reeled Silk—not less than one pound—best specimen Dip. and $6; 2d do, 3; 3d do, Trans.

Sewing Silk—not less than one pound—Best specimen, Dip. and $8; 2d do, 5; 3d do, Trans.

Cocoons.—Best half bushel, (1850,) $5; 2d do, Trans.

Articles exhibited, to be the product or manufacture of the present year.

#### FLOWERS.

Professional List.—Greatest variety and quantity of flowers, $5; 2d do, 3. *Dahlias*—Greatest variety, 5; best 24 dissimilar blooms, 3; 2d do, 2; best single Dahlia, 2. *Roses*—Greatest variety, 5; best 24 dissimilar blooms, 3; 2d do, 2. *Phloxes*—Best ten varieties, 3; best seedling, 2. *Verbenas*—Greatest variety, Silver Medal; best 12 varieties, 2; best seedling, 2. *German Asters*—Best collection, Silver Medal; 2d do, 2. *Pansies*—Best and greatest variety, 3; best 24 varieties, 2.

Amateur List.—Greatest variety and quantity of flowers, Silver Medal; 2d do, $3. *Dahlias*—Greatest variety, Silver Medal; best 12 dissimilar blooms, 3; best 6 varieties, 2; best single variety, Sm. Sil. Med. *Roses*—Greatest variety, Sil. Med; 2d do, 2; best 6 dissimilar blooms, 3. *Phloxes*—Best 6 varieties, 3; best 3 varieties, 2; best seedling, 2. *Verbenas*—Greatest variety, Sil. Med.; best seedling, 2; best 6 varieties, 3; best 3 varieties, 2. *German Asters*—Best collection, Sil. Med.; 2d do, 2. *Pansies*—Best and greatest variety, Sil. Med.; best 6 varieties, 2.

General List—*Open to all Competitors.*—Best collection of green house plants, owned by one person, Sil. Med.; 2d do, $3. Best floral design, Sil. Med.; 2d do, 3. Best floral ornament, Sil. Med.; 2d do, 3. Best hand boquet, *flat* 3; 2d do, 2. Best hand boquet, *round*, 3; 2d do, 2. Best basket boquet with handle, Sil. Med. For the most beautifully arranged basket of flowers, Sil. Med Best floral exhibition, by any Horticultural Society, Loudon's Encyclopedia of Gardening.

#### FRUIT.

Apples.—For the best and largest number of varieties of good table apples, 3 of each variety, named and labelled, grown by exhibitor, Diploma and Hovey's Colored Fruits; 2d do, $5; 3d do, Trans. For best 12 varieties of table apples, 5; 2d do, Trans. & 2. For best 6 winter varieties, 3; 2d do, Trans. and 2. For best fall seedling apple, for all purposes, with description of tree, history of its origin, &c.—one dozen specimens to be exhibited, $5. Best basket of standard fruits, Sil Med.

Pears.—For the largest number of varieties of good pears, named and labelled, Diploma and Hovey's Colored Fruits; 2d do, $5; 3d do, Trans. For the largest and best collection of autumn pears, named and labelled, Dip. and 5; 2d do, Trans. and 2. For largest and best collection of winter pears, named and labelled, Dip. and 5; 2d do, Trans. and 2. Best collection of newly introduced pears, with a description, &c., Diploma and Hovey's Colored Fruits.

Peaches.—Best six varieties, named and labelled, Dip. and $5, 2d do, 3. Best 3 varieties, named and labelled, 3; 2d do, 2. Best 12 peaches, 2; 2d do, Trans. Best seedling variety, 6 specimens, 3.

Plums.—Best collection of plums, 6 specimens each variety, Dip. and $5; 2d do, 3. Best 4 varieties of good plums, 6 specimens each, 3; 2d do, 2. Best 12 plums, choice variety, 2; 2d do, Trans. Best seedling plum, with description, Dip. and 5.

Nectarines.—Best and largest number of good varieties, six specimens each, 3; 2d do, 2. Best 12 specimens of any good variety, 2; 2d do, Trans.

Quinces.—Best 12, of any variety, $3; 2d do, 2; 3d do, Trans.

Grapes.—Best and most extensive collection of good native grapes, grown in open air, $5; 2d do, 3. Best 3 varieties of native or foreign grapes, grown under glass, 3 bunches each to be shown, 5; 2d do, 2. Best dish of native grapes, Trans.

Watermelons.—Best specimens of any variety, 3; 2d do, 2. Best collection of watermelons, 3.

Muskmelons—Best specimens of any variety, 3; 2d do, 2. Best collection of muskmelons, 3.

Cranberries.—Best peck of domestic culture, 8; 2d do, 5.

To be accompanied with a full description of the manner of cultivation, nature of soil, &c.

Any premiums may be withheld, in the discretion of the committee, if the samples exhibited are not worthy of a premium.

The fruit exhibited for which premiums are awarded, to be at the disposal of the committee.

No person can receive but a single premium on the same fruit.

Twelve volumes of Downing, common edition, and twelve of Thomas' Fruit Culturist, will be awarded by the committee in their discretion, for choice fruits not enumerated.

#### FOREIGN FRUITS.

For best exhibition of each variety of Fruits named in the above list by persons out of the State, Small Sil. Med. and Trans; 2d do, Downing or Thomas

Volumes of Downing or Thomas will be awarded by the judges in their discretion, for choice fruits not enumerated.

#### VEGETABLES.

10 best stalks of celery, $3; 6 best heads of cauliflower, 3; 6 best heads of brocoli, 3; 12 best white table turneps, 3; 12 best carrots, 3; 12 best table beets, 3; 12 best parsneps, 3; 12 best onions, 3; 6 best heads of cabbage, 3; 12 best tomatoes, 3; 2 best purple egg plants, 3; 12 best sweet potatoes, 3; best half peck Lima beans, 3; best half peck Windsor beans, 3; best bunch double parsley, 3; three best squashes, 3; largest pumpkin, 3; 12 best ears of seed corn, 3; best half peck of table potatoes, 3; 2d do, 2; best and greatest variety of vegetables raised by exhibitor, 5.

Discretionary premiums will be awarded on choice garden products not above enumerated.

#### STOVES NO. I.

Best cooking stove for wood fire, Sil. Med.; 2d do, S. Sil. Med. Best cooking stove for coal, Sil. Med.; 2d do, S. Sil. Med. Best cooking range for families, Sil. Med; 2d do, S. Sil. Med. Best furnace or other apparatus for warming house—economy of construction and consumption of fuel, and security to premises, to be taken into consideration, Sil. Med.

#### STOVES NO. II.

Best ornamental parlor stove, Sil. Med; 2d do, S. S. Med. Best hall stove, Sil. Med.; 2d do, S. S. Med. Best sample of hollow ware S. S. Med

#### SILVER WARE, CUTLERY, AND BRITANNIA WARE.

Best exhibition of silver ware, Sil. Med. Best exhibition of table cutlery, American manufacture, Sil. Med.; 2d do, S. S. Med. Best exhibition pocket cutlery, American Manufacture, Sil. Med.; 2d do, S. S. Med. Best specimen of silver ware with agricultural designs, suitable for premiums, Sil. Med.; 2d do, S. S. Med. Best specimens of argentine and britannia ware, Sil. Med.; 2d do, S. Sil. Med.

#### GRAIN, FLOUR, AND SEEDS.

Best sample winter wheat, not less than one bbl, $5; 2d do, 3. Best sample spring wheat, 1 bbl, 5; 2d do, 3. Best sample rye, 1 bbl., 5; 2d do, 3. Best sample oats, 1 bbl., 5; 2d do, 3. Best sample barly, 1 bbl., 5; 2d do, 3. Best sample Indian corn, 1 bbl., 5; 2d do, 3. Best sample buckwheat, 1 bush., 3; 2d do, 2. Best sample flax seed, 1 bush., 3; 2d do, 2. Best sample hops, not less than 25 lbs., 5; 2d do, 3. Best sample timothy seed, 1 bush, 3; 2d do, 2. Best barrel flour, S. S. Med.; 2d do, Trans. Best sample of newly introduced grain, valuable to the farmer, not less than 1 bbl., 3.

Samples of grain and seed in all cases to be deposited in the Museum of the Society.

For the largest and best variety of samples of Farm Crops, cultivated and raised on any *one* farm, tastefully arranged and exhibited on a wagon or cart, $10; 2d do, 5; 3d do, Sm. Sil. Med.

The exhibitors to present a certificate to the committee that all were raised on the exhibitor's own farm.

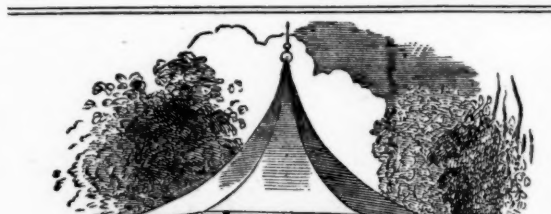
#### SALE OF IMPROVED STOCK AND IMPLEMENTS.

At the shows of the Society in 1848 and 1849, demand for the purchase of improved animals and implements having been very extensive, the Executive Committee, with a view of facilitating their sale, will open a Register for such animals and implements as the owners may desire to sell, and which they will offer for sale at the Show in September next.

Farmers are desired to communicate freely with the Secretary, and any aid he can render them in procuring choice seeds, valuable implements or stock, will be most cheerfully performed, so far as in his power.

B. P. JOHNSON, *Sec'y.*

*State Agricultural Rooms, Albany, Feb'y*, 1850.



## BEES AND BEE HOUSES.

EDS. GENESEE FARMER :—I have been a subscriber to your paper for the past year, (and this day have subscribed for the present year,) and am much pleased with the perusal of the same; but I am somewhat disappointed that it does not speak more on the subject of BEES, and the best method of raising and treating them. As there are many within the bounds of your wide circulation interested in this subject, will you be so kind as to inform your subscribers in regard to the best way of managing; or, will some of your correspondents give their views on the subject, and oblige one who has just begun to keep bees? SARAH S. SARGEANT.—*Buffalo, April*, 1850.

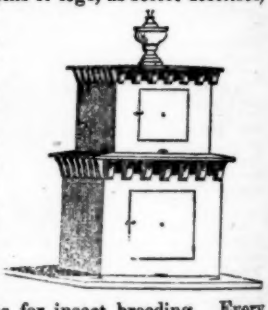
We are gratified to be able to inform our correspondent that T. B. MINER, the author of the *American Bee-Keeper's Manual*, one of the best books yet published, has promised us a series of articles on the subject, and we think we may say that Mr. M. is one of the most intelligent bee-cultivators in the world. In preference to giving any remarks of our own, therefore, we await the receipt of these articles, the first of which we shall undoubtedly be able to give in the July number; in the mean time, we give an engraving of a bee house, and a description from the *Manual*:

"The above engraving represents an ornamental bee house, from an original design, executed expressly for this work. It is not intended for general use, but as an ornament to lawns or flower gardens. This is the first design of this nature that has been laid before the public, to the best of my knowledge. In all the various works on the honey-bee, published in the old world, I find nothing but the ordinary bee stands of ages past, or simple sheds of no more beauty than a pig sty or a hen roost. That such a structure would truly be an ornament to the flower garden, every one will admit. Why, then, should such bee-houses not be erected? The cost will not be much. Thirty dollars will suffice to cover it.

"It will be perceived that the accompanying cut represents an *octangular* building; that is, one having eight angles or sides. This affords accommodation for eight hives, or one to each angle. The height should be sufficient to allow a person to walk under the lower extremety of the roof with facility, and no higher; consequently the posts should be about seven feet long. The roof should project over beyond the posts two feet, at least, in order to shade the hives during the heat of the day. The style of architecture may vary according to the taste of the owner; yet the style of the foregoing cut is not unbecoming, by any means. Instead of having a floor, as is here represented, the posts may be inserted in the ground about two and a half feet, and the area within the posts may be graveled, so as to have a neat and tidy appearance. The portion of the posts placed in the ground should be left untouched, and as large as possible. These posts may either be turned, as they appear in the cut, or they may be boxed in, and made with suitable mouldings to look very well. If they be set into the ground, they should be of some kind of durable wood, and the ends to be put below the surface ought to be charred with fire, to prevent decay.

"With box-columns or posts, the style of architecture should be changed. A cornice should be run around the structure; a dental cornice, perhaps, would look well. Every builder, however, will know how to give the best effect to the general appearance of the structure. If the posts be not inserted in the ground, let the floor be laid, and ordinary joists measuring three or four inches will do for the columns, if boxed in. In this case it will, perhaps, require some support to prevent the structure from being blown over in a gale. Three or four posts sunk into the ground even with the floor, and made fast thereto, would be all that is necessary.

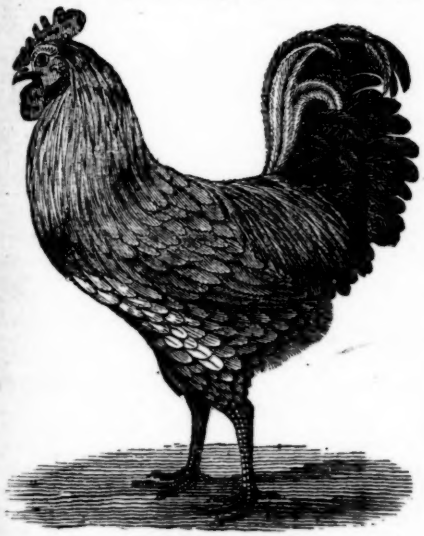
"The two hives represented in the foregoing cut of bee house, are intended to represent my EQUILATERAL hive, as shown in engraving. These hives have a beautiful appearance, and if surmounted by a wooden urn, handsomely turned, the decoration would be complete. They rest on pins or legs, as before described, during the spring and summer, and in the winter they are let down, and the openings in the front and rear are used. The general rules for the management of bees in other hives apply to these with the same force. One great advantage in an open apiary of this nature is, that it affords the least possible facilities for insect breeding. Every part is exposed, and the broom or the brush applied once a week, thoroughly, will root out every vestige of moths, spiders, wasps, &c."



We have a number of the *Bee-Keeper's Manual*, and can therefore furnish copies to those desirous of obtaining the fullest information on the subject. We will also give information in relation to the hives.

## A CHAPTER ON FOWLS.

We never had much faith in the laying qualities of the large breeds of fowls. In a wild state, the larger birds lay but few eggs compared with the smaller ones. The *Polands* were always our favorites, and we still think they are unsurpassed for laying; and for beauty, to our fancy, they are unequalled. Their graceful form, their jet black pulmage, shaded with a beautiful metallic green, and their snowy top-knots, make them, to our notion, the *beau-ideal*. But they must be pure; for if crossed, they are a miserable fowl. In order to test the matter for ourselves, about a month since we procured a pair of the *Shanghae* fowls. Dr. BENNETT, author of the "Poultry Book," says—"this variety of domestic fowl is, in my estimation, one of the *very best* known in America." They are scarcely six months old, and the cock weighs 8 lbs. 7 oz., the pullet 6 lbs. 5 oz. To our surprise and satisfaction the pullet has laid nearly every day since she came in our possession. They resemble in almost every respect the Cochin China, an engraving of which we give from *Browne's American Poultry Yard*, except that they are feathered on the legs. These fowls were imported from Shanghae in China, and coming from the extreme *north* of that country, they will undoubtedly prove hardy in our climate. We shall have their portraits taken as soon as they get a little older. They are extremely docile, and the cock shows quite a disposition to become a pet.



COCHIN CHINA FOWL.

We have also eggs of the *Cochin China*, that will be hatched in a few days. Dr. BENNETT says, "they are no more expensive to keep than the common hens, while they are about twice as large, better layers, less destructive to gardens, more docile and tractable, and very tender of their young. Their meat is fine and highly flavored. They usually commence laying at from six to seven months old. Their eggs are of a reddish or mahogany color, and of delicious flavor."

In contrast with these monsters we give the universal favorite, the little BANTAM—small, to be sure, but important and consequential as the largest of the feathered tribe. He disdains to acknowledge as superior those whose only claim to superiority is a more portly frame—proclaims his equality, at least, in every motion, and declares in unmistakable language, that "the *soul's* the standard of the man."

These little fellows originated in Bantam, a town and kingdom in Java, famous for its pepper trade. They are of small size, lively and vigorous, exhibiting in their movements both stateliness and grace.

MESSRS. EDITORS:—I have just been reading a very able work, entitled "The American Poultry Yard," by D. J. BROWNE, in an appendix to which (written by SAMUEL ALLEN,) the average weight of Cochin China, Malay, and Dorking cocks, is stated to be *seven pounds*. As I have been extremely anxious to procure some of these celebrated varieties, on account of their great size, this statement surprised me not a little, inasmuch as I am already the lucky owner of eleven fowls, the weights of which are as follows:

| | | | *lbs.* | *oz.* |
|---|---|---|---|---|
| A cock, | 8 | months old, | 9 | 5 |
| hen, | 3 | years " | 7 | 13 |
| " | 7 | " " | 7 | 9 |
| pullet, | 8½ | months " | 6 | 5* |
| " | 9½ | " " | 7 | 2* |
| " | 9½ | " " | 6 | 5* |
| " | 8 | " " | 6 | 10* |
| " | 9 | " " | 6 | 2* |
| " | 7½ | " " | 6 | 5* |
| " | 6 | " " | 5 | 10† |
| " | 5 | " " | 5 | 2† |

* Some of these will outweigh the old hens before a great while.
† These two were hatched late and of course are not near grown.

I was induced to weigh them by the statement of Mr. ALLEN, and to send you a brief description of them, because they so greatly exceed in size the famous chickens named by him. Is not Mr. A. mistaken in limiting the weight of Malay and Cochin China cocks to seven pounds?

I purchased my two old hens and cock that weighed 8½ lbs. last year, from an old man who brought them from Northampton county, in this State. I can trace them no further. From their appearance and character I judge them to belong either to the "Bucks County Breed," or the "Boohies," mentioned by Dr. KITTRIDGE. Their general color is black, dotted with white; sometimes entirely black and sometimes grey. When first hatched, they are never black or even dark, but invariably light colored—much resembling young *Creoles*. Unlike any other large fowls I have ever seen, *they feather early*, being completely covered at six weeks old. Their legs are dark, combs double or single, combs and wattles usually large, some with small "top-knots" or crests, but mostly without them. They do not breed evenly, some growing considerably larger than others. They lay well. Last year the youngest of my two hens, then two years old, laid 109 eggs; the older, then six years old, laid 78. Of course pullets would have laid much better. All my hens are laying now, except three—the two old ones and the youngest. I have no doubt if well fed, warmly housed in winter, and their nests frequently broken up to prevent their becoming broody, they could be made to yield each 150 eggs a year. They are said to sit well, but do not cover their young as often as good mothers should. What is their name? D. T.—*Northumberland, Pa., Feb'y*, 1850.

We are unable to give your chickens a name; but they are undoubtedly a cross between one of the large breeds and some smaller variety, perhaps the common fowl. The fact that they "*do not breed evenly*" indicates this. Nothing goes farther to establish the distinctness of a race than uniformity in size of chickens of the same age. They are certainly very respectable for size and for their laying qualities.

# Horticultural Department.

EDITED BY P. BARRY.

We have been struck with a few facts in regard to the planting season just closed, that indicate, to some extent, the changes that are taking place in the public mind on certain points in fruit culture; and we think it not amiss to take note of them now, while fresh in our memory.

The *first*, is a remarkable falling off of the damand for *new* varieties, especially among amateur cultivators. A few years ago — indeed, we need hardly go farther than a single year — a person having a small lot of 50 by 100 feet to plant, would order a dozen varieties of the newest, rarest, and most extraordinary to be found noticed in all "the books." These he *must* have; our good old sorts, with characters "beyond suspicion," would not by any means answer his purpose. He had just read an account of an extraordinary "*seedling cherry*," produced by Mr. A., in one part of the country; a wonderful seedling apple, by Mr. B., in another; a no less remarkable pear, by Mr. C., somewhere else; and an apricot and a plum that, in spite of the curculio, bore extraordinary crops, and out of the culture of which little fortunes had actually been made. These were just the articles for his garden, he thought, and he got them *if he could*. This was something like the way people were getting along in fruit tree planting, when various pomological conventions were held, to which planters everywhere looked for some advice in the matter of selecting varieties. These conventions, it will be remembered, recommended for *general cultivation* mainly the old, well known sorts, whose characters were fully established. This at once changed the current of taste among inexperienced planters. Hence it is that we see in the nurseries here over 100 new or rare varieties of the pear, from which scarcely a tree has been dug, unless for a nurseryman or an experimentalist, while for the old sorts of established merit the demand has been quite equal to the supply. This is as it should be. People who have small gardens that they wish to stock with really choice fruits for their own use, have no business with any but well tested and generally approved varieties. Neither should those who plant fruit gardens or orchards for the supply of the market, meddle with new or little known varieties. Nurserymen and pomologists alone should cultivate and test these; and it is their duty and a portion of their business to do so. The conventions have therefore accomplished some good, we might say a *great deal* of good, in this one simple particular, of recommending for general culture, varieties upon which nearly all the world had pronounced a favorable verdict.

The *second* fact we wish to note in reference to the planting taste of the past season, is the unusual demand for DWARF TREES. A few years ago, nobody sought for dwarf trees. Scarcely anybody knew of such things. The *tall standard*, with a bare trunk of six or eight feet high, was the only form of trees recognized for all sorts of circumstances. The little village garden of 50 by 20, or the orchard of twenty acres, were placed upon precisely the same footing in this respect. The consequence was, that small gardens were entirely unavailable to fruit culture beyond a few gooseberry or currant bushes; and thousands and tens of thousands of our citizens in all parts of the country, who will in a few years have charming little gardens of dwarf trees, were quite excluded from all the pleasure and profit which this interesting culture cannot fail to yield. People everywhere in our cities and villages, who have but a small lot of ground to cultivate, are very naturally delighted with these trees so admirably adapted to their circumstances. *Old people*, too, who could not reasonably hope to reap the fruits of standard trees that never yield in less than six to ten years, are planting dwarfs, because in two years at most they may gather their fruits. Thus, two large classes of persons heretofore quite excluded from fruit culture, are now brought in, and are in fact the most active. Whole orchards, too, of these dwarf trees, pears in particular, are being planted for the growth of fruit for market; and when we consider that not one out of a hundred will die in planting — that 300 to 500 may be put on an acre of ground — and that in two or three years at most they begin to bear — we do not see why they will not be profitable. Many are also very judiciously filling the spaces between standard pear and apple trees, with pyramidal pear trees on quince stocks, considering that at the end of twelve or fifteen years, when their standard trees have attained good size and have come into full bearing, and the dwarf trees begin to be in the way, they can very well afford to cast them off. This system of managing orchards is extensively practiced in France, where orchards and fruit gardens are models for all the world. It cannot but be highly advantageous in this country, at least in all the older districts, where land is valuable and fruit growing an important pursuit. An orchard of five acres, for example, will, at thirty feet apart each way, contain but 242 standard trees. — Among these we can put in 726 dwarf or pyramidal trees at fifteen feet distance all around. Until the eighth or tenth year, the standard trees will yield nothing worth reckoning upon; but from the third or fourth year, the dwarfs will yield a considerable income, and by the seventh or eighth year they will produce not less than from $1 to $5 worth per tree. When the standards require more ground, a part or the whole of the others may be removed, as the case will require. This gives to pear orcharding a very different aspect from that in which it usually appears, by reducing the period at which the income begins, nearly or quite ten years — equal to one-fourth the time that any one now, upwards of twenty-one years of age, can expect to live.

The planting of standard trees of any sort in small gardens, will unquestionably cease within a few years, as soon as people generally have acquired a little more information and experience in the different departments of tree culture, and trees suitable for

it more extensively propagated. The pyramidal system of training the apple, the pear, and the cherry, is so simple and beautiful, that it must meet with universal favor among the proprietors of small gardens. The peach and the apricot can be kept small enough for any moderately sized garden, by having them low headed and properly shortened in. Where very small trees are desirable, they may be worked on plum stocks. A few years ago, when we commenced the introduction of these trees, many persons who pretended to know something about tree culture, but in reality knew nothing, raised a cry against dwarf trees as being "short lived and worthless;" but we hear nothing of that sort now. People begin to understand that if they don't live a hundred years, they bear early, look very well in their gardens, and are easily replaced when they die out by old age.

### SUMMER MANAGEMENT OF PYRAMIDAL TREES.

No matter how well trees may have been pruned before the growing season commenced, a little attention during summer is absolutely necessary. It is impossible for the most skillful pruner in existence to cut exactly, in all cases, at the proper point, or at least at the point that would induce the precise development of buds and branches that he wants; certain buds will push with greater or less vigor than he had reason to expect, from their appearance and position, and thus the balance proposed to be maintained is broken. In such cases we must, at the proper moment, when growth is going on, resort to what is called pinching — nipping off with the finger and thumb (a sharp knife is better,) the point of such shoots as are exceeding their due relative proportions. The leading shoot, that is intended to constitute the main trunk of the tree, should always take the lead; none of the lateral or side shoots should be permitted to dispute its supremacy. The annexed cut is intended to illustrate a case of this kind. B is the leading shoot, and A, A, side shoots, both of which have taken a more sturdy development than is consistent with the welfare of the leader and the pyramidal form of the tree. If A, A, had been timely nipped, the branches below them and the leader above would all have had their just proportions. We therefore point this out as an item of very great importance in growing pyramidal pears. When the tree is left to itself during the whole season, and in the fall we find it grown so out of proportion as the annexed cut, a great deal of severe pruning is necessary to restore the balance; these strong branches next the leader have to be cut to one eye perhaps, and the whole pyramid is injured and considerably retarded. What we have said has reference mainly to the leading shoot and those in its vicinity; but it applies with exactly the same force to all the main side branches, which may be considered as so many leading shoots, and will require the same care and treatment.

There is another evil that must be remedied by pinching: for instance, when we cut a leading shoot or a side shoot, expecting that all, or nearly all, the buds below the point where we cut, to break and make side shoots or spurs, and, contrary to our expectations, only two or three at the extremity grow, leaving the others dormant. To make these lower buds break, we must pinch those above them at a very early day, This checks the flow of sap and concentrates it in the lower parts, causing the buds there to break. This is the way to have all branches covered with fruit spurs their whole length. Pyramidal pear trees on *quince* stocks are naturally so fruitful, generally speaking, that pinching to form fruit buds and spurs is rarely necessary. The principal point to keep in view is the *form*. On pear stocks, however, both objects must be kept in view. All we have suggested on this point will be necessary in both cases. Pinching to promote fruitfulness consists in pinching or breaking off the ends of the small side shoots, stopping their elongation and turning the sap into the formation of fruit buds. This is practiced continually as growth advances and the condition of the trees render it proper, principally through July and August.

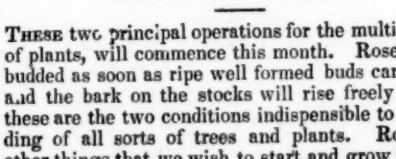
This pinching to promote fruitfulness requires more skill and practice in pruning, and much more physiological information respecting trees, than any other pruning. If done too soon or too severely, the object is defeated by having the buds break into new shoots, instead of forming fruit buds, thus requiring pinching and pinching again, before the object is attained. Vigorous and feeble growers require different degrees of pinching, and require it to be done at different seasons. Different soils and climate all affect this matter so much that no general rules can be safely adopted. Some rank growers on free stocks cannot be brought into bearing by this means, until the pinching and pruning are so severe as to weaken to some extent the whole force of the tree. Root pruning has the same effect, and in such cases is quite necessary; but this must be done in the fall, when growth has terminated.

THANKS. — We are under obligations to THOS. HANCOCK, Esq., of the Ashton Nurseries, Burlington, N. J., for a packet of seeds of the "Round Borneo Citron," a splendid variety, that took the Pennsylvania Horticultural Society's premium, last September.

## BUDDING AND LAYERING.

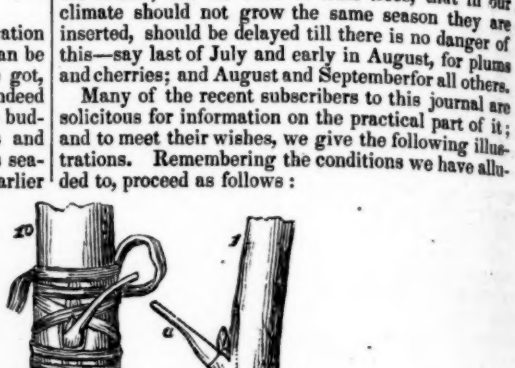
THESE two principal operations for the multiplication of plants, will commence this month. Roses can be budded as soon as ripe well formed buds can be got, and the bark on the stocks will rise freely; indeed these are the two conditions indispensible to the budding of all sorts of trees and plants. Roses and other things that we wish to start and grow this season, can be budded, no matter how early—the earlier the better; but the buds of fruit trees, that in our climate should not grow the same season they are inserted, should be delayed till there is no danger of this—say last of July and early in August, for plums and cherries; and August and September for all others.

Many of the recent subscribers to this journal are solicitous for information on the practical part of it; and to meet their wishes, we give the following illustrations. Remembering the conditions we have alluded to, proceed as follows:




BUDDING.

Take a young shoot (fig. 1) with good ripe buds, and strip the leaves off, leaving part of the leaf stalk as at *a*. The shoot is held in the left hand and the knife in the right; the lower part of the blade, say at the point *b*, is placed on the shoot at *c*, one-half to three-fourths of an inch above the bud; the thumb of the knife hand ests on the shoot at *f*, the lower extremity of the bark intended to be removed with the bud: the knife is then drawn towards you obliquely, parallel with the shoot, smooth and level, so that the bark and a very thin portion of the wood will be taken off. In cases where this wood is firmly attached to the bark, it is better to leave it; but where it is loose, or partly so, it may better be removed, which can be done by putting the edge of the knife under the wood, between it and the bark, and lifting it up. Care in doing this is necessary, to avoid pulling out the root of the bud, as in that case the bud is lost. Fig. 3 is a good bud; *g*, root of the bud, and *h*, root of the leaf. Fig. 4 represents a bad bud, always thrown away. Fig. 7 shows the stock cut in the form of a T, to receive the bud. Fig. 8, the bark raised with the ivory or bone handle of the knife. Fig. 9 represents the bud in its place. The top of the bud is always cut square, to fit the cross cut on the stock. Fig. 10 shows the bud tied with bark or orther material. The whole operation should be done neat and quick.




### LAYERING

is a mode of propagating trees and plants by bending down the branches, generally, but not always, of the current seasons growth, and covering them at the point where we wish to produce roots, with two or three inches of earth. Roses, carnations, and a multitude of ornamental trees and plants, grape vines, quinces, gooseberries, &c., &c., are propagated with ease and certainty in this way. The annexed cut of a carnation layer conveys a very clear idea of the operation in general.

In the case of the carnation, the stems to be layered (usually done just as they go out of bloom,) are stripped of the leaves as far as it will be necessary to imbed them in the ground; the ends of the leaves are also cut off an inch or so; the knife is then inserted below a joint, and the stem cut half through; the knife is then drawn upward, slitting the stem to the next joint above; the small portion remaining below the joint where the incision was made, is cut clean off to the joint, and the stem is bent into the

ground, and pegged down with a crooked wooden peg, to keep it in its place and to keep the cut open; the earth is drawn around it, carefully placing it in an upright position; a good watering will then finish. For all layers the soil should be well prepared, and light and sandy. All ordinary layering is performed on the same principle. In two or three months, most plants will have rooted and be ready for transplanting. When a branch is layered, it is in most cases well to cut off a portion of its top, particularly if growing fast, as it checks the flow of sap to the point, and hastens the granulation and formation of roots at the cut. Where the shoots are soft and tender, great care is necessary to avoid breaking them off, and in such cases it is sometimes better to make the cut on the upper side, and twisting the branch a little to keep the cut open when pegged down. Roses are usually layered after they have gone out of bloom, and the other shrubs, &c., when the wood is sufficiently grown and matured to work well.

## GRAPES AND PEARS.

Mr. Editor:—Allow me to state a fact in relation to pruning the grape, which argues strongly in favor of the thorough use of the knife. Gustavus Clark, Esq., of Clarkson, has recently practiced cutting *close* to the main branch every side shoot. He suffers two or three shoots to grow from the root, training them in different directions and tying to stakes four or five feet high. His crops of fruit are splendid—equal to any I ever saw. New shoots spring along the whole length of the old vine, on which grow the rich clusters. This fact should encourage timid pruners to a bolder and more thorough application of the knife.

Have you ever eaten a good Summer Franc Real pear? I have a tree of that variety—and genuine too—which has borne fruit three years, and not a specimen but proved worthless. Of the Duchess d'Angouleme, which has fruited the same length of time, the same remark is true. Not one pear have I had that was even tolerable. In the same soil, B. Diel, Ananas, Louise Bonne de Jersey, Bartlett, and White Doyenne, have produced delicious fruit, and B. Brown very good, H. P. N.—*March*, 1850.

We have eaten the Summer Franc Real, not *first rate*, but *second* at least. Yon may have let it hang too long; it ought to be picked soon. Duchess will be all right yet; *wait a little.*

## ANSWERS TO CORRESPONDENTS.

Hedges.—(F. A. R.) We suppose you mean the common native thorn, which makes a good hedge. *Locust*—Put the seed in scalding water, and let it remain for 24 hours before sowing. Sow in drills three feet apart, and three or four inches apart in the drills. At six feet apart, about 1200 will plant an acre, and a couple of pounds of seed will produce plants enough. The Honey Locust will make a good hedge in four years from the seed. The seeds should, if possible, be all sowed in April or May—June will do. Ditches by hedges of this sort are not only unnecessary, but improper, subjecting the hedge too much to drouths.

Oleanders.—(Marcellus.) Don't use arsenic to kill worms in the pots: lime water is safer and better. We would advise the ladies to plant their Oleanders out in the garden during summer; there they will form fine new roots and get rid of worms.

Names of Flowers.—(O. A. A., Hemlock Lake.) We have no doubt your seedsmen have acted honestly. The *Gilia tricolor* and *Lupinus Cruikshankii* are well known annuals; but you will not find them, or mere *varieties* of any species, in botanical works.

## PRUNING.

Mr. Editor:—I have recently visited many fine gardens and orchards in different parts of our country, and in no one thing am I so much disposed to find fault, as in the gross neglect to *prune fruit trees.* The long, thrifty shoots, are allowed to extend themselves to an unnatural length, and the lower branches become exhausted, sicken and die—the tree looses its symmetry and beauty; and if it produces any fruit worthy of its scion, it is in spite of bad usage. Not only this, but many seem to think that pruning a young fruit tree sets it back just to the extent of the pruning, and consequently they thus lose, as they suppose, a good share of a season s growth.

You well know that the orchards of our country suffer severely for the want of judicious pruning, and I would inquire if there is not some more efficient way to arouse the attention of our farmers to this all important subject? I am glad to see that this neglect is no fault of the Genesee Farmer. Wayne.

This is quite correct. From actual observation we know that a great majority of all bearing fruit trees in most parts of the country, are suffering seriously for want of a little pruning; but the matter is receiving more attention.

Effects of the Winter on Vegetation.—The frequent frosts we had towards spring, when the snow was gone, had an injurious effect on strawberries and other plants with small roots near the surface, not protected; they have been drawn out. Excepting this, we have seen no ill effects of the winter; no trees, not even tender ones, are winter killed in the least. The *Deodar Cedar* and *Auracaria* have stood quite safe without protection. The *Cryptomeria*, very slightly protected, quite safe, and will prove hardy. *Taxodium sempervirens* had its foliage burnt off, but the wood and buds are uninjured. Abies *Smithii* and *Douglassi*, *Picea pinsapo*, *Pinus excelsa*, *cembra* and *pumila*, all quite hardy. *Mahonia aquifolia* stands the winter well, retaining its foliage fresh and green; it is now finely in bloom, and is a beautiful lawn shrub. *Spiræa pruniflolia* and *Budolea Lindleyana* are as hardy as can be desired.

We see by the Horticulturist for May, that all these plants have stood the winter at Newburgh, some unprotected, and others covered with boards.

## PROCEEDINGS OF THE SECOND CONGRESS OF FRUIT GROWERS, convened under the auspices of the American Institue, in the city of New York. 1349

The proceedings of this body have at length appeared in a very handsome, well printed pamphlet, of upwards of 100 pages; and we are indebted to the President of the Congress, Hon. M. P. Wilder, for a copy. It is impossible for us to say anything about it, or to give any extracts from it, until next month, as the whole of this number of the Farmer was ready for the press before it came to hand.

The Season.—Our spring here has been unusually cold and backward; up to the middle of May we had rarely a warm spring day; but it has been a fine season for planting, and all have had a long and favorable time for completing their improvements. The weather now, May 16th, is fine, and fruit trees are loaded with blossoms, promising a most abundant crop. The thinning process will very generally have to be resorted to, if no untimely frost or other accident occurs after this date.

## Ladies' Department.

We have promptly forwarded to all applicants the *"Floral Rake,"* though we fear some of them will never reach their destination, on account of the distance some of our friends reside from the regular express routes. Though wisely making no attempts at rhyme, many of our lady correspondents are truly poetical :

Eds. Genesee Farmer :—That rake, if you please, sirs, —shall "use it without gloves," receive it thankfully, and send you a boquet in return. Hoping the mignionette will have a sweeter fragrance and the petunias a richer bloom through its agency, I ask you to send it soon. N. A. S.—*Ripley, Brown Co., Ohio.*

Was it not for the advantage our near readers would have over those more distant, we would offer *Downing's Flower Garden, Parsons on the Rose,* and other good books, as a premium for the best boquet sent to our office during the season. But as we can not at present make this offer so as to be available to our friends generally, we would urge the formation of Horticultural Associations in every city and village and county of our country ; and the offer, by such associations, of similar premiums. The labor will be light, the expense little ; and in return, flowers will spring up where grow the thorn and thistle—homes will be made more pleasant, eyes more bright, and hearts more happy. The cheeks of loved ones will catch the bloom of the rose, the sweetness of the honeysuckle. True, flowers cannot furnish food for the body ; but, shall the body be fattened, and the mind and the affections starved ? Shall we work for the body always, and never for that which distinguishes man, and makes him greater than the brute ? Is it right that we should eat, work, and die, like the ox ? Is it not as sinful to stultify and starve the mind as the body ?

Few realize the injury they do, and actually suffer, by depriving themselves and their children of the pleasure afforded by the cultivation of flowers—these children of the field. A farmer and his wife, in easy circumstances, not a thousand miles from this, had an only son, who, much to the sorrow of his parents, had imbibed a desire "to go to sea." He had read of the raging billows—of strange people in strange lands—of orange groves—of lands where the pine-apple grows—of exciting scenes in capturing the whale,—and his whole heart seemed set on seeing foreign lands and living on the ocean wave. In vain his parents endeavored to interest him in the operations of the farm. He worked, to be sure, but his heart was not in the work. It was a drudgery, and he longed for the time when he could bid farewell to parents and home, and see the world for himself. At that time a Horticultural Society was established in the county, and at the first exhibition fruits and flowers of the finest kinds were displayed, many of them brought from a distance, and such as had never been seen in the neighborhood before. Our young friend attended this exhibition, and looked at the display with wonder and surprise. Nothing astonished him more than the lively, joyous interest, those engaged took in the arrangement of their several collections. While he had looked upon everything connected with the cultivation of the soil as a heartless drudgery, here even the ladies appeared to engage in it with a zeal and a pleasure he could not account for. One class of flowers particularly attracted his notice ; he procured a few plants—planted them and nursed and watched them, and waited anxiously and impatiently for the coming bloom. In due time his plants blossomed, and their extraordinary beauty repaid him for his toil. He carried off the prize at the next show. Elated at his success, and the pleasure it afforded him, he increased his collection—forgot all about the sea and strange lands—and became one of the most enthusiastic and intelligent cultivators, and the most successful competitor for prizes at the shows of the Horticultural Society. He now takes hold of farming in earnest—aims at the finest crops ; and the parents reap in the society, perhaps the salvation of their son, and in the better management of the farm, the happy influence of flowers on the young mind, and *the benefits of Horticultural Societies.*

### BUTTER MAKING.

As this is the season for making butter, I think it not inappropriate to write a little on that subject. Butter making is a business that justly occupies the attention of the farmers of this country at present ; and although each one that has published his process has a somewhat different manner, yet they are all the best—all get the premium. One churns the whole milk, one skims sweet, another skims sour ; and the conclusion to be drawn from all this is, that in this respect we are like all other nations that have a surplus of butter. The Irish and Dutch have the reputation of making the best butter ; yet they are as unlike as they can be in their manufacture. Even in different parts of Ireland, their management is wholly different ; in one part they churn the whole milk, in another they skim as soon as changed, saying that if the milk turns thick before it is skimmed, the cream will turn soft and consequently the butter will be soft and will not keep. I had in my employ the past season, an Irish girl from the south of Ireland, who has worked in an extensive dairy in that country. She says they use more salt in their butter for transportation than they do for home consumption, and that their butter is never worked after it is salted, but is finished and packed in firkins. I intend to pack a pot next June, exactly after her directions ; but I do not suppose it will be fit for anything but soapgrease. In Johnston's Agricultural Chemistry, I think the Dutch are mentioned as churning the whole milk, but let it stand until it is so thick that it will hold a stick up, with which they stir it. A Farmer's Wife.—*Saratoga Co., N. Y., May,* 1850.

Exercise.—Throughout all nature, want of motion indicates weakness, corruption, inanimation and death. Trenck in his damp prison, leaped about like a lion, in his fetters of seventy pounds weight, in order to preserve his health; and an illustrious physician observes: "I know not which is most necessary for the support of the human frame—food or motion." Were the exercise of the body attended to in a corresponding degree with that of the mind, not only would children suffer less from sicknes, and their lives be less uncertain, but men and women, and particularly men of learning, would be more healthy and vigorous, more happy in their domestic lives, and the better able to perform their duties. In fine, with propriety it may be said that the highest refinement of mind, without improvement of the can never present anything more than half a human being.

## Youths' Department.

### "SPECIAL MANURES."

The editors of the Horticulturist and the Boston Horticultural Magazine can not agree on the subject of "special manures." Mr. Downing takes the *pro*, and Mr. Hovey the *con* side of the question. The Magazine conductor insinuates that "the theory of special manures may answer very well for *beginners* in gardening, but every practical man knows" that it has no foundation in nature. To this the Horticulturist editor replies by copying extracts of a letter received from a member of the Albany Horticultural Society, giving an account of "several old White Doyenne (Virgalieu) pear trees, the fruit from which was nearly worthless, being *cracked, knerly,* and small." After the use of special fertilizers, these trees produced superb fruit, which took the premium in competition with the finest cultivated varieties in the city and county of Albany; and fruit from these renovated trees was exhibited at the Pomological Congress in New York, which was fair and beautiful. What Mr. Hovey will say to this evidence, we have yet to learn, as it only appears in the May number of the Horticulturist. For ourselves, we have so long believed in the theory of feeding a plant or tree on the constituent elements from which its whole weight and substance are formed, that we can not remember when we first began to learn and preach the doctrine. The distinguished Dr. Samuel Mitchell taught this theory in 1794, or before Liebig, Downing, or the writer was born.

The modern doctrine of special manures is about sixty years old; although there is evidence which leads us to believe that it was acted on, and in some degree understood, in the eras of Columela, Virgil, and perhaps by old Hesiod himself. The theory is substantially this: To organize the tissues and fruit of apple, pear, peach, and other cultivated trees and plants, the incombustible matter which appears as *ashes*, when their stems, leaves, and fruit are burnt, *are indispensable elements*. Hence, if the potash, lime, and other things which make *ashes*, be deficient in the soil, the defect will operate injuriously on the tree and its fruit. A soil may lack mold, or organic, as well as mineral matter; but as a general rule, the farmer has only to supply potash, lime, and bones, to secure the growth of fair crops. Thus one-third of the ash obtained by burning wheat, is pure potash; and nearly fifty parts of the remaining sixty-six are phosphoric acid. Hence, ground or dissolved bones are a special manure; so also are wood ashes and gypsum.

Those who have carefully read the articles on Agriculture in our Youth's Department, will be satisfied that it is possible to starve a tree or a plant, as well as a cow or a horse; and that there is very little sense in blindly giving a tree *manure* without knowing, or thinking, or caring whether we are giving just what the ground lacks and the tree needs, or whether we are supplying that with which it is already surfeited. The man who would wilfully shut his eyes and wander about the streets in darkness, would be entitled to very little sympathy, even though he should fall into the ditch. If science furnishes the means of ascertaining of what substances every tree and every plant is composed, and that some part of their composition is taken from the soil, and our common sense teaches us that unless the needed substances are in the soil the wants of the tree can not be supplied, and if science likewise furnishes us the means of knowing whether the required substances are in the soil or not—the man who, with these facts before him, clear and bright and invaluable as the noon-day sun, shuts his eyes alike to the light of science and the teachings of common sense, will be at best but a blind follower of the blind.

### DIGNITY OF LABOR.

One of the editors of the Farmer was called upon to deliver an address before an Association of Mechanics and Farmers, mostly young men, on Franklin's Birthday. An extract or two may not be unprofitable to our youthful readers.

"Franklin had the greatest respect for those who render themselves useful, no matter how humble the occupation. And yet there are young men and women too, in our own country, who pride themselves on their ignorance of all useful and honorable employment—who boast their own uselessness, and glory in their own shame. The drones of society, they affect to despise those who furnish the luxuries on which they subsist; who by their own industry and skill provide for those dependent on them—cause the wilderness to blossom as the rose—build our cities, beautify our dwellings, and cover the seas with the heralds of commerce and civilization.

Let the young farmer or mechanic scorn every association that asserts his inferiority or his dependence, his inability to provide for himself, or to perform with credit his part in the great theatre of life; even though ostensibly formed for his elevation. Let the very imputation fire your soul with a lofty ambition. Show to the world by a proper self respect that you appreciate your station. Jehovah himself, the Great Architect of the Universe, might as well be despised for his mighty works, as that you should be lowly esteemed for your very usefulness. Unite economy and industry with decision of character, and with the ordinary blessings of Providence you can ensure competence—yea, respectability, usefulness and honor will be your reward.

How insignificant do those appear who boast only a *noble* parentage or a high sounding title, in comparison with one of nature's noblemen, like Franklin; the briar by the road-side would better compare with the tall cedars of Lebanon, or the spark from the electric machine with the lightnings of heaven. Let every one who admires his character and his success take at once the first steps in mental discipline.

Young man! are you suffering under the tyranny of an unprincipled master—look up! talent accompanied by industry, in this land, more than in any other, brings its sure reward. Remember that he whose birth we this night commemorate, suffered in this respect, all it is possible for you to endure. Remember Franklin the *poor apprentice*, and Franklin the *proud philosopher*. Have you become the dupe of the designing, are you depending on the promises of friends, or labor saving associations, or any thing short of your own well directed industry, for success in the world? Remember the fate of Franklin.—Depend alone on the strength of your own right arm, the force of your own genius. Have you been unwittingly led into a course of conduct that must end in injury to others, and disgrace to yourself? Institute a rigid self-examination, such as arrested Franklin in his course of folly."

## Editor's Table.

We recently made a trip east—and a very pleasant one. Our journey brought us in contact with many of our friends—and we number in this list all who read the Farmer—particularly on the route of the New York and Erie Railroad. There may have been a time when farmers doubted the advantage of railroads to the agricultural community, considering them more beneficial to capitalists than farmers; but that time, if it ever really existed, is past. The benefits of the New York and Erie Railroad to the southern tier of counties in this State, is felt no doubt by all, as it was expressed by every one with whom we conversed.

We were particularly interested in the large quantities of milk taken by this road to New York city, from Orange and some other counties. We have no means of ascertaining the quantities daily supplied, but we saw railroad trains, called "*milk trains*," and steamboats, loaded with thousands of cans of milk, and nothing else. This is contracted for in New York. Each farmer makes his contract with some wholesale purchaser, stating the number of cows he keeps, and about the quantity he can supply daily. The farmer then procures large tin cans, marking on them his own name and that of the person who purchases his milk. Along the line of the road "*milk depots*" are established, and all the seller has to do, is to fill his cans and have them at the nearest depot. The "*milk trains*" stop at each depot and take up the cans—the contractor being on hand at the arrival of the boat to receive them. The empty cans are returned in the same manner. The price paid the farmer is *two* cents a quart in summer and *three* in winter, (the purchaser paying freight.) The milk is retailed at three and four cents a quart. We suppose from the appearance of the milk on the tables in the city, that Croton water adds a little to the profit; but the New Yorkers have reason to be thankful that they can now get pure milk and water.

We came from New York in company with one of our subscribers in Orange county, who had been to the city to collect his account for milk for the last three months. He stated that but little butter comparatively is now made in the county, the farmers prefering to sell their milk; and less attention being paid to butter making, Orange county butter will ere long lose its well earned reputation.

We are much indebted for the agreeableness of our trip, to the kind attentions of Mr. MARSH, Secretary N. Y. & Erie Railroad, and Capt. DAKIN, of the fine steamboat "*Ben Loder*," on Seneca Lake.

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THE present number completes the first half of the current volume. We are more than gratified that our efforts to furnish farmers with a paper at once cheap and valuable, and particularly to make the present volume superior to any of its predecessors, are appreciated in the most encouraging and substantial manner. From every quarter our friends are giving us the no unpleasant duty of adding new names to our already extended list. The FARMER has now a circulation larger than ever before, and it is still rapidly increasing. We would say, in answer to many inquiries, that that we can supply back numbers from January.

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PATENT OFFICE REPORT—PART II.—The Report from the Patent Office, which is now in the hands of the printers, is divided into two parts. The first relates to Patents and Mechanical arts, and the second exclusively to Agriculture. Congress has ordered 130,000 copies of the latter printed and bound. It is expected to make a volume of some 600 pages. We give an extract from the document, in this number of the Farmer, and will copy from the Washington Republic "Suggestions for the Improvement of Agriculture," in our next.

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L. G. MORRIS, of Mt. Fordham, N. Y., sailed for Europe in April last, for the purpose of examining the best herds in Europe, and purchasing such animals as he may consider a valuable acquisition to his present stock. He will attend the sale of BATES' herd, and return in September. His Second Annual Sale will be in October, particulars of which will be given through the Farmer. The Bates' sale was announced for the 9th of May.

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BEE MOTH.—A new method of preventing the ravages of the Bee Moth is given in the advertisement of Mr. WHALEN, in this number. Mr. W. is the President of the Saratoga County Agricultural Society, and not a man likely to attempt to "humbug" the public.

CLINTON COUNTY, (N. Y.) AGRICULTURAL SOCIETY.—We should have acknowledged last month the receipt of the premium list of this Society for the current year, and also an able address to the "farmers and friends of agriculture." We should judge from the liberal premiums, the ability of the address, and the number of our subscribers in the county this year, that the Clinton County Agricultural Society is one of the most efficient in the State. The officers are Elias A. Hurlburt, President; Peter Keese, Samuel H. Moore, S. V. R. Havens, Anderson Keese, J. S. Stetson, Z. C. Platt, Roswell H. Barber, John W. Bailey, A. J. Moses, John Dunning, Vice Presidents; Willetts Keese, Secretary; J. Battey, Treasurer.

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MONROE CO. AGRICULTURAL SOCIETY.—A meeting of this Society for the adoption of Premiums to be awarded at the next Fair, the appointment of Judges, &c., was held at the office of the Farmer on the 7th May. We should have given some portions of the premiums offered, as requested, but found it impossible to obtain a copy from the Secretary.

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THE AMERICAN BIRD FANCIER, by D. J. BROWNE, author of the "Poultry Yard," is a neat little work for the lovers of the feathered songsters, containing directions for rearing, feeding, and the general management of House and Cage Birds. Published by C. M. SAXTON, N. Y.

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REAPERS.—We call attention to the advertisement of "McCormick's Virginia Reaper," in another column. Our correspondents at the west speak favorably of the operation of this Reaper. On the same page will be found the advertisement of RAPALJE & BRIGGS, agents for Hussey's Reaper.

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THE FARMERS' GUIDE TO SCIENTIFIC AND PRACTICAL AGRICULTURE, by Henry Stephens, Scotland, adapted to this country, by Professor Norton. It is issued in numbers of 64 pages, handsomely embellished, at 25 cents each. Leonard Scott, & Co., publishers, N. Y.

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SPANISH MERINO SHEEP.—We refer our readers to the advertisemont of JOHN J. MCALLISTER, of Gaines, N. Y. Mr. M. has some fine Spanish Merino Sheep, well worthy the attention of wool growers.

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PRINCESS TRIBE OF SHORT HORNS.—For an advertisement of the produce of a young bull of this superior tribe of shorthorn cattle, see advertising pages.


**No Humbug.**

THE undersigned, after 20 years' experience and much research, has discovered a cheap chemical compound, easily applied, which completely prevents the ravages of the bee-moth, and which can be adapted to each and every kind of hive, whether patent or otherwise. This discovery he will impart to any individual on the receipt of one dollar. It being understood the purchaser shall hold himself honorably pledged not to impart the information to others. The whole contained in a circular, to which is added several valuable suggestions in the construction of hives and management of bees, worth more than any patent hive in existence. Address, post paid, SETH WHALEN,
June, 1850. [6-1t*] Ballston Spa, N.Y.

**Splendid Michigan Farm for Sale,**

CONTAINING 150 acres of arable land, two miles from Ann Arbor, on the main road leading to Detroit. 100 acres are in a high state of cultivation, for a new country; the balance is wood land; all fenced in. The white clover and other grass affords pasture for 150 sheep from shearing time until after harvest. About one-third of the cultivated land is sandy loam, the balance clay loam. The meadows produce heavy burdens of herds grass. The pasture fields, in addition to clover and timothy, are covered with a spontaneous growth of white clover. The house, an old one, stands back from the road about eight rods, partly surrounded with a grove of locust and sugar maple trees; the balance of the door-yard, one-quarter of an acre, contains fruit trees and shrubbery of different kinds. There is also a small orchard near by, of bearing apple trees. The out-buildings are good. The best of water, and plenty of it. Ann Arbor affords a good market for every thing the farmer has to sell, with flouring and saw-mills, female and male seminaries, and eight churches. The college and part of the village is open to view from this farm. I have resided on this farm 10 years. It is as productive and as desirable a location as is to be found in Michigan—only to be seen to be admired. The location is pleasant, and a healthy and good neighborhood. As I wish to decline farming, I would dispose of this property at the low price of $4,500; possession given in spring of 1851. Title indisputable. For further particulars, inquire of the undersigned. WM. ANDERSON.
Ann Arbor, Mich., June 1, 1850. [6-1t]

## McCORMICK'S PATENT VIRGINIA REAPER.

THE undersigned, now on his way from the south to Chicago, Ill., finds only time, and room in the columns of the June number of the Genesee Farmer, to insert a short notice of his Reaper, and to promise a fuller and more detailed one in the next number.

The undersigned would respectfully state, in the first place, that a certain machine, advertised in the May number of the Farmer, and called "Seymour & Morgan's Improved Reaping Machine," though much inferior, from its compounded arrangement of some parts of other gearing, &c., with that of the undersigned, is yet a palpable infringement of the latter—that a legal process has been instituted to hold them (Seymour & Morgan) to their just accountability for the same—and that the purchase and use of said machine by others, will make them equally liable with the manufacturers, to a prosecution. Purchasers are also further warned to take care that this machine is not palmed upon them in such a manner as to release the *seller* from responsibility to *them* for the *use* of it.

In the same number of said journal, is also an advertisement of "J. Ganson & Co.," also of Brockport, which may require a little explanation, by way of guarding against a possibility of misconstruction. In the HANDBILLS of Messrs. Ganson & Co., their right to manufacture and sell the Virginia Reaper is expressly restricted to the counties of Monroe & Orleans, which is not so CLEARLY the case in the ADVERTISMENT in question. It should be distinctly understood that while the right of J. Ganson & Co., to manufacture and sell said Reaper is limited to the *time* stated by them, (March 1st, 1851,) this right is equally *restricted* to the counties of Monroe and Orleans, in its broadest sense And if they prefer making a *sacrifice* upon their machines, to insure the sale of all they have manufactured to be used in the two counties, (having no patent fee to pay for the time specified,) it can have no influence upon the price elsewhere.

The patentee of this Machine has for a number of years been careful to preserve as much uniformity in its price and sale as may be, and designs still to do so. And if his price, shipped from Chicago, is a *little* higher than that of his Reapers manufactured in this State, he trusts, from his facilities, to make his Machines at least that much a better article. It may here be remarked that great injustice has been done to the Virginia Reaper, by those manufactured at *Brockport* for a few years past; but *all* that were sold *last year*, without the late improvements, by Fitch, Ganson, & Co., of that place, gave entire satisfaction.

Perhaps the *best evidence* of the superiority of the undersigned's Reaper over all others, is the unparalleled demand for it in the *great western field*, having there almost entirely superseded all others, and where all that have really been tested have been *introduced*; and who ever heard of *any* new machine just got out, that was not *certified* to be *just the thing*, by good friends of course, who either may be incapable of judging, or if they discover defects, may confide in the *ingenuity of their friend* to remove them, but which in perhaps nine cases of every ten, is found *imaginary*.

But, as previously stated, for want of room in the present number of the Farmer, the *evidence*—and that of the most convincing character—of the superiority of the Virginia Reaper over all others, as last improved and manufactured at Chicago, is unavoidably postponed until the next number—1500 of them having been manufactured there (at Chicago) for the last, and 1600 now about completed for the ensuing harvest. Recollect that $5 or $10 in the price of a Reaper at harvest, is a small matter in comparison with the *great consideration* of having the best Reaper—the most reliable Reaper. *Recollect that.*

The undersigned will only add that one of these Reapers, manufactured for the last harvest, and having all the present improvements, was represented by the owner to have cut in the harvest 300 acres of grain, without a shilling's worth of repairs, *without changing or grinding the sickle*, and for which he refused its first cost, at the close of the harvest, and ordered another for the next.

A considerable number of these machines will shortly be sent to the Hon. Thos. J. Paterson, at Rochester, as general agent for the State, and who has appointed sub-agents in various parts of the wheat-growing territory, and distributed handbills which will be found to contain more full and detailed evidence of the value of the Reaper, as manufactured at Chicago

June, 1850. C. H. McCORMICK.

## J. W. Sherman's Wheat Drill and Seed Planter.

WE are building three different qualities of these machines.

No. 1 is a superior Drill and Broad-cast Sower, and will sow fine manure (such as plaster, ashes, guano, &c.,) broad-cast or in the drill rows, any desirable quantity per acre, at the same time of drilling in the grain. It is well finished, substantially made, of good material, and WARRANTED, at the low price of $65.

No. 2 is built for drilling all kinds of grain. It will also sow fine manure broad-cast on crops. Price $55.

No. 3 is a plain Wheat Drill; simple, accurate, substantial.

None of our machines will clog in the runs; they can not do so with the most difficult kind of seed. The distributing principle is entirely new, invented this spring, and thoroughly tested.

We are prepared to supply all orders. Those wishing to purchase drills, would do well to see ours before purchasing elsewhere. The sooner the order is given, the more sure you will be of getting your Drill in time. All the above are seven tube Drills.

N. B.—Persons wishing to sell our Drills, are offered a good chance. A large descriptive bill will soon be issued, with cuts. All communications or inquiries, post paid, will receive prompt attention. Address SHERMAN, FOSTER, & CO.

June, 1850. [6-1t] Palmyra, Wayne Co., N.Y.

## HUSSEY'S REAPING MACHINE.

WE would respectfully call the attention of farmers to the fact that we have the exclusive agency and the exclusive sale of the above named Reaper, in all that part of the State of New York west of Ontario county, and we are also general agents for the United States and Canada. We sell the Reapers at the Manufacturer's prices, adding only cost of transportation. They can be examined at our Store. All who design purchasing are earnestly requested to hand in their orders at once, as this will enable us to have on hand in season all that may be required, and prevent any being disappointed, as might be the case if orders were delayed till the harvest had begun. That they are the best Reapers made, and that it would be greatly to the advantage of farmers to have them, there is no doubt.

Annexed are a few of the many certificates which might be given:

MACEDON, Aug. 29, 1849.

Messrs. Rapalje & Briggs—Gents:—The Reaping Machine I bought of you, made by Messrs. Eldred & Hussey, at Auburn, has been thoroughly tested by me the present harvest, and I am happy to say has exceeded my most sanguine expectations I have cut with it 125 acres of wheat, besides my own crop, making some 200 acres of oats and wheat; and I can confidently recommend it to my brother farmers as just the machine they want. I have cut 12 acres of oats in half a day, and 20 acres of stout wheat in one day, with three horses abreast, and most of it was bad cutting I think I can cut 25 acres of good wheat in a day, and do it better than can be done in any other way My machine is now in perfect order, and I consider it full as good as when I got it of you.

Yours most respectfully, THOS. RUSHMORE.

WHEATLAND, August 20, 1849.

Messrs. Eldred & Hussey—Gents:—I have now used one of your Reaping Machines for two years, and do most cheerfully say that it has given the best satisfaction. I have cut my whole harvest, and a large one too, with my ordinary farm hands. I have cut 20 acres of stout wheat a day with ease, and I would most cheerfully recommend it to my brother farmers as the best and most economical machine that is used on a farm. In fact I think so much of it, that five hundred dollars would not induce me to part with it if I could not get another. I have also two brothers, each of whom have one of your machines, which they like very much, and could not be induced to be without. I think your agents, Messrs. Rapalje & Briggs, will sell a large number of them in our county next season, as many of my acquaintances have told me they intend to purchase one of your Reapers another season. ANAN HARMON.

BERGEN, Sept. 1st, 1849.

This is to certify that I have this season used one of Hussey's Reaping Machines, which I purchased of Messrs. Rapalje & Briggs, of Roche-ter, and that it gives perfect satisfaction. I have cut my wheat, which was very badly lodged, much faster, better, and cheaper than it could be done any other way. I have had one of McCormick's for the last three years, and it now stands in the road as a useless article, as I consider it, having tried to use it for three years without any success.

I consider Hussey's Machine just the thing for our farmers, and I could not now, after proving its merits, be induced to be without one. NOAH WILBUR.

GREECE, Sept. 7th, 1849.

Messrs. Rapalje & Briggs—Gent'n:—The Reaping Machine bought of you by Mr. Champion, for me, exceeds any thing of the kind I ever saw. You will remember that when I got it I said to you I was sure it would not work in my badly lodged wheat, as I had seen McCormick's tried repeatedly, and it was a perfect failure; but I was most agreeably disappointed. It cut any of my wheat better and faster than eight good cradlers could do, and I think it saved me from two to three dollars per acre in all my lodged wheat, in getting it clean and fast. In short, too much cannot be said in its favor. I would not sell it, if I could not get another, for one thousand dollars, for should I raise as much wheat for eight or ten years to come as I have for the last ten, it would save me more than that sum, and I think it will last me longer than that time. Yours, most respectfully, J. NORTON.

June 1, 1850. RAPALJE & BRIGGS.

Genesee Seed Store and Ag. Warehouse, Rochester, N.Y.

## Morgan Horse General Gifford.

THIS justly celebrated horse will stand, the coming season, at Lodi village, Seneca county, N. Y. He was got by Old Gifford Morgan, out of a pure Morgan mare. In his size, color, form, and action, he closely resembles his distinguished sire, and is one of the very best specimens of this invaluable race of horses.

Terms of insurance, $12. Good pasture provided at the usual rates, and all necessary attention given to mares from a distance. Accidents and escapes at the risk of the owners.

March, 1850. [5-2t*] CHARLES W. INGERSOLL.

## Morgan Hunter and Morgan Chief.

MORGAN HUNTER will stand the coming season, at the stable of S. A. Gilbert, East Hamilton. Terms $10 to insure. This fine horse is seven years old; was bred in Springfield, Vt.; got by Gifford Morgan; dam by the same horse. For figure and description, see *The Cultivator* for 1849, page 216.

MORGAN CHIEF will be three years old on the 18th of June, 1850. He is a very superior colt; was got by Gifford Morgan, dam by Green Mountain Morgan. See *The Cultivator* for 1849, page 67. He will be kept for a few mares only, at the stable of H. R. Ackley, East Hamilton. Terms $10 to insure.

ACKLEY & GILBERT.

East Hamilton, Madison Co., N.Y., June 1, 1850. [6-1t]

## PATENT RAILROAD HORSE POWERS, AND OVERSHOT THRESHERS & SEPARATORS,

*With recent important improvements,* ☞ *for which patent is secured.* ☜ *Manufactured at the* AGRICULTURAL WORKS, *and sold wholesale and retail, at the* AGRICULTURAL WAREHOUSE AND SEED STORE OF HORACE L. EMERY,

**Nos. 369 and 371 Broadway, Albany, N. Y.**

THE subscriber having, at great expense of time and money, done much to introduce these machines throughout the country generally, and with such success, is fully satisfied of their superiority over every other kind of Threshing Machinery in use, with which he is acquainted.

Probably no other machines yet invented have met with so rapid an introduction, gone so extensively into use, or given such universal and uniform satisfaction.

The rapidly increasing demand has induced him to erect, during the past years, (1848. 1849,) a spacious manufactory in this city, to facilitate the manufacturing, and better supply the wants of the farming community.

These increased facilities, together with his extensive Warerooms, and complete assortment of every desirable article of Implement or Seeds wanted by the farmer, enables him to offer great inducements to the public to purchase their supplies of and through him, whether for their own use or to sell again.

Particular attention is called to the RAILROAD HORSE POWERS, AND OVERSHOT THRESHING MACHINES & SEPARATORS, as recently improved, by which the application of power is applied from the Endless Platform to the shaft of the driving band wheel, in such a manner as to *remove* the liability of *breaking of links and wearing of the small wheels*, and the slipping and wearing of the links and pinions in consequence, is *wholly avoided*. Greater strength, durability, and lighter friction are secured; all of which being important points not before attained in these machines

They are comparatively light and portable—the One Horse Power, complete, weighing about 1100 pounds; the Two Horse Power, complete, weighing about 1900 pounds. When they are to be often removed, axles and wheels are attached, forming of itself a wagon. When in use, one pair of wheels are removed.

They are operated by the weight of the horse or horses, at an elevation of about one and a half to two inches to the foot, or 16 to 22 inches, according to the weight of the horses.

Three men with the One Horse Power and a change of horses twice a day, can readily thresh from 150 to 200 bushels wheat or rye, or double that quantity of oats or buckwheat per day.

All can be operated inside of barns, in stormy weather, when men and teams could do little else to advantage.

The Thresher is Overshot, and is driven without any crossing of bands. The feeder stands erect and is not annoyed with dust. There is no liability of accident from the spikes, &c., as no hard substances can injure or break them. A Separator is attached to all the Threshers, and answers an admirable purpose for separating the straw from the grain, leaving it with the fine chaff, fit for the Fanning Mill.

They have been exhibited in operation by the subscriber during the past three years, at all the principal State and County Fairs of New York, Massachusetts, Ohio, and the Canadas, and have been extensively introduced and used among the farmers of those States and Vermont, Rhode Island, Connecticut, Virginia, North Carolina, Tennessee, Indiana, Illinois, Missouri, Iowa, Wisconsin, and Michigan.

The First Premiums of the Societies have been awarded them, and the highest encomiums of committees and farmers have been bestowed upon them for their SIMPLICITY, EFFICIENCY, UTILITY, DURABILITY and CHEAPNESS.

They can be taken in pieces and packed very compactly, and forwarded to any part of the country, by railroad, canal, or steamboats.

He has efficient agents for receiving and forwarding machines in all the principal towns and cities in the States of New York, Michigan, Indiana, Illinois, Iowa, Wisconsin, Ohio, Kentucky, Missouri, Vermont, &c.; and all machines delivered on board boats, cars, &c., and freights always contracted for at the lowest rates, and shipping bills made out and forwarded, without extra charge for same, insuring speed, safety, and reasonable charges for transportation.

Terms CASH, or approved notes, or city acceptances, at thirty, sixty, or ninety days, with interest.

They are warranted to operate as represented, or may be returned to the subscriber or his agents of whom they have been purchased, within three months, and purchase money refunded.

For further particulars, see Catalogue of Albany Agricultural Warehouse and Seed Store, Agricultural papers, Reports of Agricultural Societies, &c., &c., or by addressing the subscriber, postage paid.

A liberal discount allowed to those persons ordering and selling the machines in their vicinity, and agents wanted to sell and put them in operation, where not introduced.

Having had long experience in the manufacture and sale of agricultural machinery, he feels assured the public will hazard nothing in purchasing their Agricultural Implements and Machinery of and through him. For the satisfaction of those unacquainted with him, and his manner of doing business, he would refer them to the following gentlemen:

Luther Tucker, Editor and Publisher Albany Cultivator, and Treasurer New York State Agricultural Society, Albany.
Sanford Howard, Associate Editor Albany Cultivator, Albany.
E. P. Prentice, Esq., President N. Y. S. A. S., Albany, N. Y.
George Vail, Esq., Ex-Pres't do do Troy, N. Y.
A. Van Bergen, Esq., do do do Coxsackie, N. Y.
J. M. Sherwood, Esq., do do do Auburn, N. Y.
B. P. Johnson, Esq., do and present Secretary N. Y. S. A. S.
J. McD. McIntyre, Rec. Sec. N. Y. S. A. S., Albany, N. Y.
D. D. T. Moore, Esq., former Ed. and Pub. Gen. Far., and present Ed. and Pub. of Rural New-Yorker, Rochester, N. Y.
Jas. Vick, Jr., Esq., Ed. Genesee Farmer, Rochester, N. Y.
J. A. Wight, Esq., Ed. of Prairie Farmer, Chicago, Ill.
C. N. Bement, Esq., late Ed. and Pub. Am. Jour. of Ag., Albany.
Ruggles, Nourse, & Mason, Manufacturers and Dealers in Ag. Implements, Worcester and Boston, Mass.
John Mayher & Co., Dealers in Ag. Implements, New York.

### Rare Evergreen Trees.

WE have on hand a fine stock of
DEODAR, or *Indian Cedar;*
ARACARIA, or *Chili Pine;*
CEDAR OF LEBANON;
ABIES MORINDA, or *Himalayan Spruce;*
PINUS EXCELSA, or *Lofty Pine;*
PINUS CEMBRA, or *Cembran Pine;*
CRYPTOMERIA JAPONICA;
TAXODIUM SEMPERVIRENS;
and many other species, all in pots, imported last season, and well established. Priced lists furnished on application.

ELLWANGER & BARRY,
Mount Hope Garden & Nurseries, Rochester, N. Y.
March. 1850.

### Burrall's Clover Mill.

FOUR sizes made and sold by the Subscriber at Geneva N. Y., warranted to be thoroughly built and to work well. Among other premiums awarded, this Machine was the first, at the late State Fair.

Orders from abroad, or inquiries in respect to it, promptly attended to. [4-4t] E. J. BURRALL.

**Wheeler's Patent Improved Railway Chain Horse Power and Overshot Thresher and Separator.**

THE subscribers, Proprietors of the Patent for these Machines, and manufacturers of them, having recently increased their facilities for manufacturing, are now prepared to fill orders for machines, and to establish agencies, to any extent that may be desired.

These machines are favorably known wherever they have been used or exhibited. They have taken premiums at many different State and County Fairs, held in Massachusetts, New York, New Jersey, Pennsylvania, Ohio, and also in Canada, never having competed for premiums without success and flattering commendations.

As many as 2,000 of them are now in use, of which over 500 were sold the past season.

The accompanying cut gives a view of a two horse machine at work, with the hands necessary to attend it. It will thresh from 125 to 200 bushels of wheat, or twice the quantity of oats per day. The one horse, or single machines, thresh rather more than half as fast as the double ones.

These horse powers are strong and durable, and run extremely light. With one end of the power slightly elevated (as represented in the annexed cut) *the weight of the horse alone* affords sufficient power to thresh at the rate before stated, or to drive circular and upright saws, or any other machines used by farmers, requiring propelling power.

THE OVERSHOT THRESHER

takes the grain from a level feeding table or apron, (of a proper height to allow the feeder to stand erect and feed without annoyance from dust,) and passes it through a toothed or spiked concave or bed, placed over the cylinder. A recent improvement admits of lowering the concave so as to bring it nearer the cylinder, and at the same time so varying the inclination of the spikes as to set the machine for threshing tough or damp grain, or short oats, and re-setting it at pleasure, for long rye or wheat, or oats in good order, or for timothy grass or clover; and all this is accomplished without stopping the machine, so simple is the process. By means of the Separator the straw, as it comes from the Thresher, is effectually separated from the grain.

The *Power, Thresher and Separator*, complete, for either one or two horses, is easily loaded on a common farm wagon; but where frequent moving is desired, the two-horse machines are placed on wheels in such a manner that when used for threshing, the forward wheels are removed, dropping that end of the power, and leaving the opposite end elevated on the other axle, ready to receive the horses. By this arrangement, (which has been made for the convenience of those who make threshing a business and for partnership machines,) two men can with ease set a two horse machine ready for work in fifteen minutes, and re-load it for moving in the same time.

W., M., & Co., also manufacture Stalk, Hay, and Straw Cutters, to be used with their horse powers; and also Circular Saws and Benches, for cutting ordinary fire wood, and locomotive and other fuel.

Every machine made or sold by W., M., & Co., or their Agents, is WARRANTED to work to the satisfaction of the purchaser, or it may be returned to them, or to the Agent of whom it may have been purchased, within sixty days, and the purchase money [if paid] will be refunded.

These machines are so light, compact, and easily handled, as to admit of transportation to any part of the country with trifling expense. The weight of the two-horse machine, complete, being less than 2,000 pounds, and of the one-horse, about 1,200.

The manufacturers are now establishing agencies in all parts of the United States and Canadas, where they are needed to facilitate the sale of these machines. Good agents are wanted in the southern and western States and the Canadas, to whom liberal commissions will be allowed.

HORACE L. EMERY, Esq., is a general agent for the sale of these machines in the State of New York, and is sole agent for the city of New York and the New England States.

Our other agents, as far as definitely ascertained, are—Rapalje & Briggs, Rochester; T. C. Peters & Brother, Buffalo; Peter R. Sleight, Esq., Poughkeepsie; F. F. Packer & Brother, Detroit; ——, Chicago; W. D. Bacon, Waukesha, Wisconsin; John Melick, Trenton, N. J.

These machines may also be had of John Mayher & Co., New York city.

WHEELER, MELICK, & CO.,

Hamilton st., corner of Liberty and Union sts., Albany, N.Y.

May 1, 1850.

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**The Thorough Bred Blood Horse Sir Henry**

WILL continue to stand at the stable of the subscriber, one and a half miles northwest of Churchville, in the town of Riga, Monroe county. Terms $10 to insure a foal. Gentlemen from a distance will find good pastures, and will receive such attention as they desire, and on the most reasonable terms.

Sir Henry is of a beautiful unfading bay color, stands 16 hands and 1 inch high without shoes, and is a sure foal getter. He is remarkable for his vigor of constitution, his developments of bone and muscle, and his intelligent, kind, and docile disposition. He is compact and short legged for a thorough bred Blood horse; yet of a rangey and majestic figure. His action is graceful, but at the same time proud and commanding. But what is perhaps of more importance, he is descended through all the generations that are recorded in the English turf register. There is no horse living that can boast of a more illustrious pedigree, his immediate ancestors, who are of unparalleled beauty and elegance of figure. The superiority and value of this horse is abundantly proved by the following facts:—In 1844, Sir Henry received the first premium for Blood horses at the Onondaga County Fair; in September, 1845, he took the second premium for Blood horses at the great State Fair at Utica, (see the report of the committee on Blood horses, in the Transactions of the N. Y. State Ag. Society for 1845, volume 6;) and the same season the first premium at the Orleans County Fair; and in April, 1849, was brought into this county, and in the September following received the first premium at the Monroe County Agricultural Fair.

The proprietor has, at great expense, brought this horse into this county, hoping to improve its revenue by adding a valuable stock of horses for market, and supplying the harness of the county with thorough and pure blood of enduring and beautiful horses.

All accidents at the risk of the owners. Owners parting with mares before foaling time, without the consent of the subscriber, will be charged the insurance; and all mares not regularly returned to the horse once a week during the season, will be charged the insurance if not with foal.

May 1, 1850. [5-2t*] BILLING RICHMOND, Jr.

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**A Rare Chance—Important to Wool Growers.**

THE Subscriber having recently purchased of Merril Bingham, of Vermont, at a great price FIVE BUCK LAMBS, from pure blooded Spanish Merino Ewes sired by the celebrated French Merino Buck, imported at a great expense by Mr. Bingham and J. A. Tainter, of Connecticut, in 1847, offers the same for sale to farmers in this secton, desirous of improving their stock of sheep. The chance is a rare one, as the pedigree of these sheep have been substantiated beyond a question, and the evidence is *in hand*.

The subscriber also purchased 30 pure blooded Spanish Merino Ewes, all in Lamb, by the old imported Buck above mentioned and now owned by Mr. Bingham, and a full blooded French Merino Ewe and Buck, at $200, which will be held for service another fall. This class of imported sheep shear from 18 to 23 lbs. of pure washed wool to the head. The size of carcass exceeds any thing now known in America.

He is fully confident that the superior advantages and the opportunity for great improvement thus offered to the Wool Growers of this county and section of country, will be duly appreciated. All who wish to purchase or examin the FOREIGN BLOOD, can do so at any time by calling at his residence three miles north of Albion, and one mile north of Fair Haven.

JOHN J. McALLISTER.

Gaines, March 15, 1850. [4-3t]

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**The Celebrated Horse Cub Baccus,**

THE best blooded and most perfect horse in this part of Michigan, will stand for the use of mares, during the present season, at Bellevue, Marshall, and Penfield.

Cub Baccus is ten years old this spring, was sired by the well known horse Baccus; his dam was sired by the old Cub Messenger, who was sired by the imported horse Golden Farmer.

Farmers wishing to breed from a good horse, will please examine the Baccus and his stock, which is superior to that of any other horse in this part of Michigan.

Terms—$2 the leap, $4 the season, and $5 to insure.

JOHN F. HINMAN.

Bellevue, Eaton co., Mich., May 1, 1850 [5-2t*]

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**The Morgan Horse Major Gifford**

WILL stand the ensuing season, on Mondays, Tuesdays, and Wednesdays, at the stable of E. W. Sheldon, Sennett; on Thursdays and Fridays at the stable of S. B. Rowe, Camillus; and on Saturdays at the stable of John C. Munro, Bellisle.

Major Gifford is seven years old this spring; his color is a beautiful chestnut. He was sired by the Gifford Morgan, his dam a pure Morgan. Breeders of good horses are invited to call and see him.

TERMS—Ten dollars to insure. Pasturage furnished. Accidents and escapes at the risk of the owners.

April 1, 1850. [4-3t*] MASON & CO.

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## The Princess Tribe of Short Horns.

IN January, 1849, Mr. Sheafe, of High Cliff, Dutchess county, N. Y., imported the young bull Exeter, bred by Mr. Stevenson, of Durham, England. Mr. Stevenson is the most celebrated breeder now living, and his herd is of the Princess tribe, one of the best and most ancient stock of Short Horns. The breeding of the Princess tribe can be traced back as pure Short Horns upward of *two hundred years*, a matter of no small consideration to those who wish to breed true stock of a reliable quality.

Exeter was selected for Mr. Sheafe, by that excellent judge of Stock, Mr. A. Stevens, of New York. He was considered one of the very best bulls in England. Quite a high price was paid for him. It is believed that his superior has never before been imported into this country. He is a beautiful yellow-red—which is a bright red, with a fine golden or saffron under tinge, arising from a rich yellow skin, and is the only bull of this peculiarly fine red ever imported. A few calves of his get will be for sale this season. Their dams are Herd Book Short Horns, very fine in their points, and great milkers. Those who desire to improve their present stock by taking a superior fresh cross, will please to apply to

June, 1850. [6-3t] A. B. ALLEN & CO., New York.

## The Celebrated Horse Morgan Eagle.

THIS truly celebrated Horse will stand for mares this season, commencing April 25th, at the American, Lima.

Morgan Eagle was purchased in the fall of 1847, in Tunbridge, Vermont, by J. Henderson, at a high price, for the express purpose of improving the stock of horses in this county. He is about sixteen hands high, and well proportioned, is a bright bay, and for symmetry and action can not be surpassed. Morgan Eagle and the celebrated trotting mare, Lady Sutton of New York, were sired by old Morgan Eagle of Vermont. Breeders of horses are particularly requested to call and examine him.

Pasture will be furnished for mares sent from a distance, and good attention paid to them. Escapes at the risk of the owners.

Those parting with mares before foaling, will be held responsible for the insurance. HENDERSON & AUSTIN.

Lima, April, 1850. [6-1t*]

## Miner's Bee Hive.

THIS beautiful and highly valuable practical Hive, is unsurpassed by any other in the United States. The Rights are in pamphlet form, with full engravings, and ample directions to make it. Price $2 only; sent by mail to any section of the country. This is positively the only Hive of *real* merit to be had.

Also, the AMERICAN BEE-KEEPER'S MANUAL, 350 pp., 35 fine engravings; the most popular work ever published on the culture of bees. Price $1; sent by mail also. Address to this office, *post-paid*.

Gen. Farmer Office, Rochester, June, 1850 [6-tf]

## Splendor.

THE Short-Horn bull known as OLD SPLENDOR, bred by Thos. Weddle, will be kept the present season on the farm of Jacob W. Page, Sennett corners, Cayuga county, N. Y.

Splendor has been owned some years in Avon and Lima, Livingston county; and the fact of his having served one hundred cows the past season, is sufficient evidence of his value as a getter.

Terms $5 a cow. JOHN R. SAGE.

Sennett, June 1, 1850. [6-1t*]

## Bickford & Huffman's Grain Drill.

THIS Drill is an improvement, in several important particulars, on Bickford and Huffman's Drill manufactured and widely distributed last year, and which operated to the entire satisfaction of every purchaser. The chief points of superiority are as follows:

1. The revolutions of the Distributing Cylinder are increased or diminished at pleasure, with perfect precision, by means of cog-wheels of different sizes. By this arrangement, the quantity of seed distributed to the acre is regulated with perfect accuracy.

2. The Teeth may be elevated or dropped separately, or simultaneously, with a single motion of the hand, according to the will of the operator.

3. The Drilling Tubes, being made of iron instead of leather, are immeasurably more durable, and the seed always passes them with a clear and unimpeded current.

4. This Machine possesses great advantages in the superior regularity of distribution along the furrow—in the simplicity of its construction—in the durable and substantial style of its manufacture—and in its far greater cheapness, when all its points of usefulness are taken into consideration.

This Drill will sow all kinds of grain, if properly cleaned.

PRICES—Seven tube Drills, $65; Nine tube Drills, $75.

Orders, addressed "Bickford & Huffman, Macedon, Wayne co., N. Y.," will be faithfully and promptly attended to.

## Burrall's Agricultural Foundry and Machine Shop.

THE subscriber manufactures various Agricultural Implements of the most approved kinds, which he sells at wholesale and retail. His work is all warranted to be well built and to work well.

The increasing demand for articles of his manufacture, recently rendered additions to his shops necessary, which having been completed, he has every facility for producing perfect work, and at reasonable prices.

Among the implements now sold by him, are Burrall's Clover Mills, 4 sizes, [1st premium last State Fair;] Burrall's Shell Wheel Plows, 12 sizes, highly improved the present season; Plain Iron beam, Shovel, Subsoil, and Corn Plows; Burrall's Corn and Grain Cultivators; Improved English Drill, for seeding and manuring at a single operation; Straw Cutters, for hand and horse power; Threshing Machines and Horse-Powers, Clod Crushers, Field Rollers, Corn Shellers and Separators, &c., &c.

Orders from abroad attended to without delay. A liberal discount to the trade. Rapalje & Briggs, Rochester, agents.

Geneva, N. Y, June, 1850. E. J. BURRALL.

## Threshers, Take Notice.

THE subscribers manufacture an eight-horse power that stands on a low wagon when in operation, thereby saving the trouble of loading and unloading either Horse Power or Separator. The Horse Power is double geered, yet has less than one half as many boxes and mashes of gearing as any other in use. They can be set ready for use by one man, in half the time required for other machines. The Cleaner possesses facilities for separating the grain from the straw, superior to any other, never winds, and is capable of threshing from three to six hundred bushels of wheat per day. They have been introduced into most of the grain growing States with unexampled success. Those wishing machines, can have privilege of thoroughly testing them before purchasing. The price of both machines is only $275. The above machines are kept constantly on hand and for sale at Woodbury's steam works on Canal street, Rochester, N. Y.

Smaller sizes furnished, if desired. Also for sale, the right of territory on both the above machines. J. & D. WOODBURY.

WONDERFUL BOOK—NOW READY,

## The Mysterious Noises in Rochester

AND WESTERN NEW YORK—A history of these remarkable sounds and of all the Strange Phenomena connected therewith, the Spiritual Communications, &c, &c. Price—single, 12½ cts.; 10 copies for $1. Orders by mail will be promptly attended to.

Ten agents wanted, to sell the above work, together with other new and valuable works, to whom a fair chance to make money money will be given. A small capital of from $15 to $25 required, and the agent will be indemnified against loss

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DANIEL LEE.

December, 1849. *Rochester, New York*

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